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Journal of the Society of Arts.

FRIDAY, MARCH 26, 1869.

Announcements by the Council.

ORDINARY MEETINGS.

Wednesday Evenings at eight o'clock :—

MARCH 31.—“On Technical Education, considered in relation to Female Schools.” By ELLIS A. DAVIDSON, Esq., Lecturer on Science and Art in the City of London Middle Class Schools. The Rev. Wm. Rogers, Rector of Bishopsgate, Member of the Council, will preside.

APRIL 7.—“On the Theory of Boiling in connection with some processes in the Useful Arts.” By CHARLES TOMLINSON, Esq., F.R.S., F.C.S.

APRIL 14.—“Spain Commercially and Economically Considered.” By E. M. UNDERDOWN, Esq., Barrister-at-law.

APRIL 21.—“On Trade Marks.” By W. WYBROW ROBERTSON, Esq.

APRIL 28.—“On the Duties of the Architect with reference to the Arrangement and Structure of a Building.” By ROGER SMITH, Esq. On this evening Sir Digby Wyatt will preside.

MAY 5. “On the Formation of Industrial Settlements in our Colonies.” By Col. FRANCIS C. MAUDE, C.B.

FINAL EXAMINATIONS, 1869.

In order to avoid holding these Examinations on the same evenings as those of the Department of Science and Art, it has been decided to hold them, in 1869, on the evenings of

TUESDAY, the 20th APRIL,
WEDNESDAY, the 21st ,,
THURSDAY, the 22nd ,,
FRIDAY, the 23rd ,,

From 7 p.m. to 10 p.m., instead of on the 27th, 28th, 29th, and 30th April, as announced in the Programme of Examinations for 1869.

A sufficient number of applications from candidates in all the subjects referred to in the notice at page 9 of the Programme having been received, papers will be set in Conic Sections, Navigation and Nautical Astronomy, Mining and Metallurgy, and Italian.

CANTOR LECTURES.

The Third Course of Cantor Lectures for the present Session will be “On Applied Mechanics,” and will consist of Four Lectures, to be delivered by JOHN ANDERSON, Esq., C.E., Superintendent of Machinery to the War Department, as follows :—

LECTURE I.—MONDAY, APRIL 12TH.

Applied Mechanics in relation to Art and Science.

LECTURE II.—MONDAY, APRIL 19TH.

Applied Mechanics in relation to Natural Properties of Materials.

LECTURE III.—MONDAY, APRIL 26TH.

Applied Mechanics in relation to Natural Laws in processes.

LECTURE IV.—MONDAY, MAY 3RD.

Applied Mechanics in relation to Natural Power.

Each lecture will begin at eight o'clock. These Lectures are open to Members, each of whom has the privilege of introducing two friends to each lecture. Tickets for this purpose will be forwarded with next week's *Journal*.

COMMITTEE ON INDIA.

Six Conferences are now in course of being held for the discussion of the following subjects, viz. :—

Tea Cultivation in India.

Hill Settlements and Sanitaria.

Waste Lands in India.

Trade with Central Asia, Thibet, and South-Western China.

Indian Fibres.

Silk Cultivation and Supply.

The following evenings have been fixed for the remaining five conferences :—

Friday, April 2nd.

“ April 16th.

“ April 30th.

“ May 14th.

“ May 28th.

At these Meetings the chair will be taken at 8 o'clock, and the discussion will be opened by a paper.

On Friday evening, April 2nd, a paper, “On Silk Cultivation and Supply in India,” will be read by P. L. SIMMONDS, Esq. Dr. Forbes Watson will preside.

Members of the Society interested in Indian questions are invited to attend.

SUBSCRIPTIONS.

The Lady-day subscriptions are due, and should be forwarded by cheque or Post-office order, crossed “*Coutts and Co.*,” and made payable to Mr. Samuel Thomas Davenport, Financial Officer.

Proceedings of the Society.

THAMES EMBANKMENT COMMITTEE.

The second meeting of the Committee took place on Tuesday, the 16th inst., at 11 a.m. Present—Lord Elcho, M.P., in the chair; Sir Charles Trevelyan, K.C.B., Sir W. H. Bodkin (Assistant Judge), Lieut.-Col. Scott, R.E., Lieut.-Col. Ewart, R.E., Messrs. R. Westmacott, R.A., Samuel Redgrave, Seymour Teulon, W. H. Gregory, M.P., C. W. Dilke, M.P., Hyde Clarke, Edwin Field, C. F. Hayward, W. R. Drake, Henry Cole, C.B., and the Hon. Auberon Herbert.

Mr. G. E. Street, A.R.A., attended by invitation.

A discussion on the relative advantages of the Thames Embankment site and the Carey-street site for the new Courts of Law, was opened by

Sir CHARLES TREVELYAN, K.C.B., who said he had, in order to save the time of the Committee, written out most of what he had to say on the subject under six heads, and he suggested that he should read what he had to say under each head, after which the discussion upon it might be taken, and then they might pass on to the next head. The first was:—

Whether the Courts and Offices of Law should be built on the same Site?

On this point he would quote from the report of Sir G. C. Lewis's Commission, at page 5:—"In speaking of concentration, we find it necessary to include not merely that of courts with courts but of courts with their offices, and, in a larger sense, with the chambers of the bar, and the offices of the attorneys, and also the requisite of sufficient and well-arranged accommodation for the judges, the officers, the bar, the attorneys, the jurymen, and the public; meaning by the latter term, and especially with regard to the courts themselves, the suitors, the witnesses, and such a number of persons coming either to learn or merely to satisfy a reasonable curiosity and interest, as the indispensable character of open courts requires to be provided for. . . . Every court, too, has various offices attached to it, in which its judgments, decrees, and orders are reduced into form, and from which they issue to the parties interested—in which a variety of documents are, from time to time, filed, in which also references from the court to its masters are conducted."

The desideratum is that the offices should be as near to their respective courts as may be consistent with light and air, and absence of crowding and confusion; or, in other words, that the courts of law and their respective offices should be at once adjacent but separate. This is admirably provided for in Mr. Street's plan, by placing the courts in the centre, and the offices in a surrounding zone, with a wide intervening courtyard; but in its application to the Carey-street site, this principle could not be fully carried out, owing to its contracted dimensions, and the buildings, therefore, adhere to one side of the zone. The Embankment site, on the other hand, being much larger and of a more oblong form, would allow of the full development of this principle.

It is a special recommendation of the Embankment site that the building site includes also the necessary provision for light and air, and approaches; so that these requirements, which generally form a heavy item in the expense of public buildings, are obtained here without any additional expense beyond the cost of the actual building site. But, in order to obtain this advantage, the outer lines of the building must coincide with the outer lines of the block bounded by the Thames Embankment, the Strand, the Temple, and Somerset House. If, for instance, the building was carried only as far as Howard-street, nearly the whole of the space between that and the Strand would have to be taken at a heavy additional cost for light and air and approaches. The great resort of people to the central courts and offices of law, and the nature of the business carried on in them, make it necessary that there should be a wide adjoining open space.

The conclusion at which I arrive is that a good public service has been done by Sir G. Lewis's Commission in proposing a real concentration of the courts and offices; by the Courts of Justice Commission in maintaining it; and by Mr. G. E. Street, in devising a plan by which it has been suitably applied.

Mr. EDWIN FIELD said one great mistake under which Sir Charles Trevelyan laboured was, in supposing that

great facilities for the access of the public at large were required. It could be proved beyond all question that 92 per cent. of the persons attending courts of law came from the chambers of professional persons. He believed the Embankment site proposed would necessitate the widening of the Strand, which ought to be taken note of in estimating the expense.

Sir C. TREVELYAN understood that Mr. Street's plan would also require the widening of the Strand.

Mr. STREET believed that, as a matter of utility and public improvement, this would have to be done, but his plan did not require it.

Mr. FIELD saw no necessity, except an architectural one, which he would not pretend to deal with, for separating the courts from the offices. He, therefore, did not at all agree that the way in which the offices in the zone were at one place attached to the court, in Mr. Street's plan, was at all a disadvantage, but rather the reverse.

Mr. STREET said a great many more people used the offices than the courts; for that reason the offices had been arranged outside.

Mr. FIELD wished to remark that he was present at this discussion, not as Secretary to the Law Courts Commission, but in his individual capacity as a person deeply interested in the question, who was probably one of the few individuals now living who had been examined upon the matter by a Committee of the House of Commons in 1841 or 1842. The Commission of which he was secretary was only appointed to decide upon the particular mode in which the Carey-street site should be appropriated, and had, therefore, no power of inquiring into the eligibility of other places. Parliament had settled the question of site by the same Act by which it required a commission to be appointed.

The CHAIRMAN said he understood Mr. Field to agree that the courts and offices should be in convenient conjunction, but he did not agree that this desideratum would be better obtained on the site of the Embankment than in Carey-street.

Mr. FIELD said he thought the Embankment scheme wholly a mistake. It was also a mistake to suppose that crowds of the public wanted to attend the courts, and that the proceedings were initiated in the offices. They were really initiated in the chambers of solicitors and counsel, and the great end to be kept in view was to keep the courts as close as possible to counsel's chambers.

Sir CHARLES TREVELYAN then read his observations on the second head, as follows, viz.:—

Whether the area of the Embankment site is sufficient for the Courts and Offices.

The area of Mr. Street's amended plan is 370,000 superficial feet, or, as nearly as possible, 8½ acres. The Embankment and Strand site contains 446,500 superficial feet, or rather more than 10½ acres, without including any portion of the Embankment. The Embankment site, therefore, affords the necessary building area, and 76,500 superficial feet to spare. Access, light, and air being satisfactorily provided for, without cost, outside these 10½ acres, by the Embankment road and railway, the river steamers, the Strand, and the open spaces towards the Temple, on one side, and Somerset-house on the other, the whole of the 10½ acres may be built upon. Too much stress can hardly be laid upon the advantage of having a broad tidal river as the ventilator and reflector of such a building as this will be.

The area covered by building in Mr. Street's plan is 285,000 superficial feet. Three modes of laying out the ground are shown in plan No. 2, annexed to the printed correspondence, which respectively give as the area covered with buildings 300,000, 310,000, and 315,000 superficial feet. The first of these is an adaptation of Mr. Street's plan, with the additional advantage of completing the circuit of the courtyard, and providing a separate quadrangle for the Probate Court and Wills.

The zone where the law offices are to be placed, is much

larger in the Embankment, than in the Carey-street site, partly because the Embankment site itself is larger, but still more, because it is of an oblong, instead of being of a square form. On the other hand, we know, from our experience in the management of the ordinary civil establishments, that office establishments may be much reduced by a careful, independent revision, in a manner which also increases their efficiency and expedites the transaction of business; and that the office-room required by them may be adjusted by a detailed investigation, at a point much below that demanded by the officers themselves. The investigation which has lately been made into the accommodation required by the Home and Colonial Departments, and the numerous offices dependent upon them, is highly illustrative of this. The demand upon the public for office accommodation has been reduced from one-third to one-half by this investigation. Great pains had been taken to settle the amount of accommodation required, and yet, when the matter was gone into by experts holding an independent position, viz., by Mr. Stephenson, Mr. Fergusson, and myself, the space required was reduced by nearly one-half. The application of these principles to the legal offices opens a great economy to view. At any rate, the ground-floor throughout the long Strand front of the Embankment site might be given up to law-booksellers, law-stationers, printers, lithographers, and other shops connected with the administration of the law, and the offices might be placed in the upper stories, where they would be more free from noise. This would be at once convenient and economical, and would give life and warmth to this long façade, which would be much more agreeable than the unbroken cold exterior of a public building.

Lastly, the tendency of all the arrangements in progress for the improvement of the administration of the law is towards the decentralization and localization of the system of judicature, so that a site large enough for the purposes of the present day is likely to be more than enough twenty years hence.

Mr. FIELD said that the consideration on this second head belonged rather to an architect than to himself, but he must make an observation on the assumptions which seemed to be made that experts had not been at work with regard to the accommodation required; that by their aid the space might be much reduced; and that the question of shops had not been considered. All these assumptions were erroneous. An amount of investigation as to the size of the rooms, &c., had been gone into, such as had never taken place in this country with respect to any other building. The number of people going in and out of every office had now been counted over and over again, and the position of each department was allotted to it, not at all according to its real or supposed importance or dignity, but solely with a view to the greatest convenience of the greatest number. He did not believe, therefore, that any additional investigation by experts would wisely reduce the space determined upon. The same with regard to the shops; the saving which might be effected by letting them had been fully considered by the Commission, but on the whole they were decidedly of opinion that the space could be allotted with much more benefit to the public in other ways. He did not put that forward as his own view (he had never thought much about the shop question), but it was the deliberate opinion of the Commission, and it would take a great deal to convince him that it was a wrong one. With regard to the size of the rooms, he might mention that particular attention had been given in each case to so apportion the space as not to have a room too large for one man, but not large enough for two, and the same principle had been followed throughout. Nor had they neglected the changes in the administration of the law which were likely to take place at no distant future, and the possibility of equity and common law being amalgamated had by no means been forgotten in the arrangements. He must also beg leave emphatically to deny the

insinuation which he considered was thrown out in Sir Charles Trevelyan's pamphlet, to the effect that all these matters had been his (Mr. Field's) work rather than that of the Commissioners themselves. The minutes of the Commissioners would show the thousands, he might almost say, of hours they had devoted to the subject, and the amount of real hard work they *had* gone through.

The CHAIRMAN inquired whether the idea of letting shops had been abandoned, on the ground that the space which they would require could be more advantageously occupied in other ways.

Mr. FIELD said it was some years since the question had been discussed, but his recollection was that it was not considered any advantage to have shops of any kind in the building itself, whilst it would be a great advantage to be able to appropriate the ground floor to waiting rooms, and other offices of a like character. For instance, the way in which the jury department of the law courts was now conducted was most shameful; but, by having proper accommodation, jurors in waiting, and not actually engaged, might see their clerks or the parties with whom they had to transact business, and thus a great deal of time and money would be saved to the country.

The Hon. AUBERON HERBERT thought these matters of internal organisation hardly came under the cognizance of the Committee.

Sir C. TREVELYAN, without questioning the fact that the question of accommodation had been fully gone into, still adhered to the opinion that a further investigation, by independent minds, with the benefit of the recent and much more extensive experience of the ordinary civil departments, would enable still further reductions to be made; and the other part of the argument remained unanswered, which was still more important, viz., that before the office establishments were placed in the new building there should be a thorough scrutiny and revision of those establishments themselves.

Mr. FIELD remarked that this had been done, not only having regard to present requirements, but also to future probabilities. One of the first questions considered by the Commission was, whether the three great branches of the common law—the Queen's Bench, the Common Pleas, and the Exchequer—should be treated as one court or as three, which would make a considerable difference in the nature of the accommodation required. He did not see how more information was to be gained, by going to people who were entirely ignorant of the details of the law, than had already been given by those best qualified to speak on the subject.

The CHAIRMAN asked Mr. Field if, taking it that the accommodation at present provided for was the minimum necessary, supposing the same amount, and of the same kind, could be provided, and still leave room for shops, he would then object to such an appropriation of part of the building.

Mr. FIELD, looking at it simply from a suitors' point of view (and the suitors had to bear all the expenses), did not think the saving effected would be of such an amount as to be worth considering. He had not thought much of the matter, but he did not consider the pecuniary advantage would be appreciable, or that it would add to the appearance of the building.

Sir C. TREVELYAN thought there would be an advantage in having a row of law-stationers' and other similar shops facing the Strand, quite irrespective of any idea of economy.

Mr. GREGORY, M.P., did not understand, if the calculations of the Commissioners had been so elaborate and exact as had been represented, how it came to pass that the sum of £1,500,000 named in the Act of Parliament had been reported by them to be actually sufficient, not only for the purchase of the land, but for the erection of the buildings.

Mr. FIELD said that Mr. Gregory's remark showed that he had not informed himself of the matter.

The scheme brought before Parliament was a very restricted scheme compared with that now contemplated; the certificate required by the Act was that the site and money were enough for the restricted scheme, and the present commission had certified that such was the case. They gave the certificate after examining witnesses and the government plans and schedules of accommodation, required for the restricted scheme. But when the Act under which the commission was appointed was before the House of Commons and Liberal members (he was not sure Mr. Gregory was not one of them) suggested very wisely that the Government scheme as suggested in the Bill might not be extensive enough, and procured the insertion in the Bill of clauses requiring the appointment of a Commission to consider this very point of whether any and what additional offices and departments ought to be included, and authorising all the extensions they might find requisite so far as these could be made without a new compulsory purchase bill. The same Act which named the £1,500,000 appointed the Commissioners, who, therefore, began their labours afterwards and reported, very wisely, in favour of a much more extensive consolidation of the law courts than had been at first proposed. For his own part, he was quite convinced that the principle ought to be carried even further. For instance, the Charity Commissioners might be advantageously added. If they were there they ought to have a good deal more work than mere charity cases to do in aid of the law. In fact, all the legal business in London ought to be conducted on the same spot. With regard to the extra expense thus incurred, it must be remembered that every fresh department thus associated with the others would have to contribute a quota of the expense, and, therefore, enlargement, in the result, would be really economical. He had forgotten to say before that he did not think it was correct to speak of the light and air being obtained for nothing in the Embankment case; it was all included in the cost of the site in either case. If there ought to be any reduction in the offices it would only be on the ground that Sir C. Trevelyan had suggested, that there would be a process of decentralisation, a great deal of the law work being sent away from London. He did not think any statesman could act on this speculation, and place the courts on a site which would not be large enough if the metropolitan work remained as extensive as it is now, and which would allow of no extension whatever. He had no doubt that the work would be done quicker and better when the common law and equity branches were amalgamated. There would, no doubt, be great consolidations. Some were obvious. For instance, all the monetary business of the law would be conducted by the office now known as that of the Accountant-General in Chancery.

Sir C. TREVELYAN said that great economy might be effected in every department by drawing a broad line between the mere mechanical work, which might be done by youths or copying clerks, and that requiring intelligence and special knowledge, and by employing no more highly-paid officers than are absolutely necessary.

Mr. S. REDGRAVE felt satisfied that the amount of accommodation stated to be necessary by persons connected with the law, when revised by outsiders competent to judge, could, as in other cases, be reduced by one-half.

Mr. STREET, A.R.A., remarked on this point that, when he was appointed architect to the new law courts, he had suggested the appointment of a sub-committee of the Commission, in order to see if any reduction could be made in the amount of space required. Every room was gone through in this way, and a large reduction had been made, amounting to no less than 37,000 superficial feet; and he much doubted whether further reduction was possible. He was sorry to hear Sir C. Trevelyan suggest that it would add to the cheerfulness of appearances if the new courts had a row of shops on the ground-floor.

It seemed to him that any public building so treated would be absolutely ruined. He did not know how the shops would be occupied, but probably neckties and similar goods, would form a prominent feature in the windows, and whatever might be said as to the cheerfulness of the result, he had no doubt as to its being paltry. The Royal Exchange was an instance of this sort of thing, and was not very encouraging. Nor did he see any necessity for having shops. The only side where they would be of any value would be along the Strand, and there were a number of offices which could be placed there, the business of which would not be materially affected by the noise of the street. On the present site, owing to the intervention of the churchyard, a large portion of the ground-floor would be fairly quiet, and there was no reason, therefore, why it should not be used for offices. Sir C. Trevelyan spoke of this site as being square, but it was in fact about 750 feet by 500, which gave a fair proportion of length to breadth.

Mr. DILKE, M.P., remarked that if the Embankment site were adopted, two-thirds of the building would abut on the narrowest part of the Strand, the widening of which would, therefore, be absolutely necessary, which, in the other instance, would not be the case, although no doubt desirable.

Sir C. TREVELYAN conceived that the widening of the Strand would be as necessary in the one case as in the other, because, if the Carey-street site was adopted, there would be no other convenient means of access to the courts from the westward.

Mr. DILKE said it was not a question of access, but whether in the one case the street would not be too narrow to allow of the building being ever seen.

Sir C. TREVELYAN remarked, in reference to the occupation of the shops, that of course there would be some authority which would have control over the whole building, and which would decide on all applications. Such shops as Butterworth's, Spottiswoode's, Hansard's, Stevens and Sons', and Waterlow's, for the sale of law books, parliamentary papers, &c., could not be considered incongruous, or unsuitable.

Mr. WESTMACOTT, R.A., said this left Mr. Street's strongest argument untouched, that it would be impossible to make a public building of any pretensions with such a front as that.

Sir C. TREVELYAN said there would be a purely architectural front towards the Thames, but that a row of first class shops would be quite in harmony with the character of the Strand; and that it would be hard if, with the help of cast-iron or granite pillars, and other modern appliances, the façade of shops below and offices above could not be made extremely handsome.

Mr. STREET remarked that the Strand itself was much dignified by Somerset House, the view through the arches of which into the quadrangle was one of the best points of view along its whole length.

Mr. WESTMACOTT, said that although England's national greatness was built upon her shops, it would be a great mistake to make them the foundation of her public buildings. It would be absurd and impossible to erect anything like a sound superstructure on a foundation of shops, which must be open and exposed.

Mr. SKYMOUR TEULON remarked that it was hardly worth while to discuss the matter further, since it had been authoritatively stated that the space could be more advantageously employed in other ways.

Mr. FIELD wished to remark, on the question of area, that all past experience showed that the legal establishments were continually growing rather than diminishing, and, therefore, any perfect scheme ought to contemplate the possibility of enlargement. The Embankment scheme proposed to cramp the legal establishment in what may be looked at as an iron coffin.

Sir C. TREVELYAN said his scheme provided 76,000 square feet more than was afforded on the Carey-street site, which would meet the additional requirements of the next twenty years, but the tendency of law reform

was towards decentralization, and the only enlargement heard of from year to year was in the jurisdiction of the County Courts. What we should soon arrive at was, that, with the exception of the appeal cases, the London courts would be local, like all the others, and would include the metropolis, with its three millions of people, and the surrounding district, now provided for by the Home Circuit; and that courts would be established in Manchester, and other great centres, in which all cases locally arising would be tried, whatever might be the amounts involved.

Mr. FIELD said if the courts were to be for all times, growing beautifully less, then the supposed need of access to the public would be always growing less also. He thought it would be very foolish to adopt a site which might hold the courts and offices if all these wonderful changes in the administration of the laws so took effect as to diminish metropolitan litigation, but otherwise might soon prove too restricted. In reply to a question from the Chairman, he said that he had made no calculations as to the amount of additional accommodation which 70,000 square feet would afford, but he objected to any site which was strictly limited on all four sides, and his contention was that the chambers of counsel were as much part of the law offices as the courts themselves. On the Carey-street plan, in which the courts were placed on the first-floor, all the streets were to the courts in the nature of subways only, which could be bridged over on the court level. In this way the Carey-street building could be enlarged, so as to reach all over London, if necessary.

Mr. REDGRAVE did not like the idea of the law offices spreading all over London, but his observation had been to the effect that the tendency was in the opposite direction. The increased powers and jurisdiction given to County Courts must tend to diminish the pressure of business in the Supreme Courts. He believed the area required would diminish.

Mr. FIELD said they had just had three new judges appointed, and might soon have more. There had also just been a number of new Chief Clerks and subordinates for them. The occurrences of the law all pointed at increase and growth.

Mr. GREGORY, M.P., said that only the previous day a very influential member of the Judicature Commission, in speaking to him on the subject, remarked that the question would not so much be one of extension as reduction; and that when the report of the Commission now sitting was published, it would not be found that any increased accommodation would be required.

The Hon. A. HERBERT remarked that, even were extension eventually found requisite, he saw no insuperable objection to the buildings being continued on the north side of the Strand, if the Embankment site were selected.

Sir C. TREVELYAN thought that, in such an event, the Probate and Wills department might very well be separated from the rest of the offices.

Mr. STREET said the whole 70,000 square feet additional area could not really be utilised for building. When viewed from Waterloo bridge, or the opposite side of the river, the lines of the building proposed by Sir C. Trevelyan would not at all harmonise with those of Somerset House. He should be very glad of any additional space, but he should wish to use it in throwing back some portions of the building. It must also be remembered that on the Embankment site there was a fall of about 32 feet from the Strand, which was a very serious difficulty; whereas, on the Carey-street site, by a slight alteration in the level of Carey-street the whole fall from front to back had been reduced to about 12 feet.

Sir C. TREVELYAN observed that the fall was the same in Somerset House, and although a great deal of space was there wasted in the basement, it need not be so in the new structure. The basement or substructure would be of the greatest possible value for providing accommodation for jurymen and witnesses; and the stamping of legal documents might, with great convenience, be carried

on under the law offices. These arrangements would allow of the courts and offices being placed on the Strand level.

The CHAIRMAN asked if the architectural requirements of a building on the Embankment site would be such that the additional 76,000 feet would not be sufficient to provide for them.

Mr. STREET said that, in order to get this additional space, he noticed that Sir C. Trevelyan encroached considerably on the Strand, opposite St. Clement's Church, whereas, he (Mr. Street) had been required to set back his building in order to avoid doing so. He did not know whether, if both sites had been open to him, he should not, on architectural grounds, have selected the Embankment, but he believed the other was the most convenient.

Sir C. TREVELYAN remarked that if the Embankment site were adopted, in addition to the clearing already made of the Carey-street site, the parish of St. Clement Danes would be nearly improved off the face of the earth; and a little interference with a long-disused churchyard was not now considered of much importance.

Mr. STREET said that it would not be possible to build close up to the Temple, as proposed by Sir C. Trevelyan, on account of the rights of light.

Sir C. TREVELYAN said the houses there were of a very antiquated, trumpery character, and would be removed by the Templars themselves.

Mr. FIELD asked if there was to be a thoroughfare from the Embankment, through the building, up to the Strand?

Sir C. TREVELYAN said there would be a covered way leading to the Strand and Holborn, through the basement, opposite the steam-boat pier; but that the carriage entrances into the interior of the building, from the Strand and the Embankment, would not be open to the public.

Mr. S. TEULON thought it would be very objectionable to have a fine roadway like the Thames Embankment ending in a tunnel rising 32 feet to the level of the Strand.

Mr. FIELD—Then all the through traffic of London which desired to pass from the east part of the Strand on to the embankment would go through the internal streets of the courts, and send all the traffic noise into every one of Sir C. Trevelyan's courts and offices.

Sir C. TREVELYAN, after remarking that this would only be a lateral communication, and that the main embankment roadway would go on straight to the Mansion House, proceeded to read what he had written on the third head, viz.:—

Accessibility of the Site to the Public.

The Council of the Incorporated Law Society state:—"The access wanted is for the legal profession, not for laymen; and from the private chambers and offices of the bar and solicitors, and not from railway-stations." To this I entirely demur. In a common law case there may be 1 judge, 3 officials, 4 counsel at the outside, 2 attornies, 2 attornies' clerks, or 12 in all; whereas, besides the grand jury, there would be 12 jurymen, 10 witnesses on an average, and 2 parties, or 24 in all, besides an indefinite number of spectators. These last were not ignored and discountenanced by the eminent men who composed Sir George Lewis's Commission, as they have been by the majority of those who have managed the detailed business of the Courts of Justice Commission. The manner in which this class of occupants of the courts is alluded to in Sir G. Lewis's report is very significant—"The public, meaning by the latter term, and especially with regard to the courts themselves, the suitors, the witnesses, and such a number of persons coming either to learn or merely to satisfy a reasonable curiosity and interest, as the indispensable character of open courts requires to be provided for." There is no building in London in which so many persons will assemble, or in which the whole country is so much interested, as the new courts and offices of law. Those who are actually present or assisting at any particular suit are few compared with those who are waiting till the suits in which they are

interested are called on, and this waiting is naturally in greater proportion on the part of the strangers than of the profession. Another circumstance which gives an advantage to the "profession" over the "laity" is, that persons regularly practising in the courts naturally choose their residences, chambers, and offices with reference to those courts, whereas the rest of the world are only casual visitors, and the more public and frequented quarters of the town are the most convenient for them. There are next to no hotels for strangers frequenting the courts on the Lincoln's-inn side, whereas on the other three sides are the principal districts from which strangers come, and to which they return.

There is no building in London which will be so much resorted to by people from all parts of the country as the law courts. The cases to be tried, whether in the first instance or on appeal, originate in every part of England; and every case brings crowds of people in the capacity of parties, grand, special, and petty jurors, witnesses, and spectators. To the great majority of these the most convenient access will be by the Metropolitan Railway, the Embankment-road, or the river steamers. To those who come from the south, and have to cross the river by one of the bridges, the Embankment site will, of course, be the nearest and most convenient. But the convenience will not be confined to them, for the Metropolitan Railway is in communication with all the other railways, and with every part of the metropolis, and will set down passengers from every quarter at the door of the law courts. The advantage of this will be still more felt when the Home Circuit is consolidated with the stationary London courts, which is likely to be recommended by the Judicature Commission.

The City merchants value the privilege of the Guildhall sittings, as they are convenient for them while waiting or attending on special juries. The Embankment site, with the railways in progress, will enable them to run down to the court in five minutes; or, while waiting, they can remain in their counting-houses and await a telegram. It will, in fact, with the help of the railway and telegraph, be better for them than the courts in Guildhall. The railway would offer similar convenience to West-end jurors, and to the small but important class of judges who are also members of the House of Lords, and barristers who are also members of the House of Commons.

Carey-street has no railway communication. The difficulty in taking a branch line to the Strand or Carey-street would be excessive, owing to the necessary interference with the Embankment, and the want of space for stations; and, even if it were done, it must be at a lower level underground than on the Embankment.

The grand entrance on the court level will be attained on the Embankment side by a roadway with a gradient of 1 in 30. A corresponding advantage cannot be obtained on the Strand side, if the courts are placed on the Carey-street site, because—

1. It has been settled that the courts on that site are to be on the first floor.

2. Even if they were on the ground floor, there must be a basement story to bring the ground floor on a level with Carey-street; and the space is too contracted to allow of a carriage entrance on the Strand side.

I will conclude this part of the subject with an extract from a private letter written by Mr. Whitmore, treasurer of the Inner Temple to Mr. W. H. Gregory, M.P.:—

"I cannot conceive that any doubt can be entertained as to the superior advantages to suitors held out by the Embankment site. Surely, they are to be considered; and if considered, figure to yourself any suitor having the choice of resorting to the one or the other locality. If he came from the country, or if he came from town, to which would he have the readier and pleasanter access, or in which would he be more likely to employ his time healthily and pleasantly? Look at him *eundo*, *morando*, *redeundo*, and his task would, in the one case, be

difficult, slow, bewildering, and disagreeable, whilst, in the other, I can fancy much that would be even a pleasure in his business."

Mr. STREET thought the amount of alteration in buildings and streets required to give access to the Carey-street site was very much exaggerated.

Mr. TEULON, referring to Mr. Shield's report, said its main feature was the revival of an old plan for a thoroughfare from Piccadilly to Paternoster-row, one of the first requirements of which would be to remove the new Record-office in Fetter-lane. In some respects he considered the Carey-street site more accessible than the other, being nearer Holborn, the second great thoroughfare. The Embankment would also be available, as parties would only have a short distance to go, in order to reach the Strand entrance. By removing one or two houses at Great Turnstile a direct communication would be opened with Holborn, and the same thing might be done at the other end of Lincoln's-inn-fields.

Mr. STREET said that by a comparatively small expense, at the western end of Lincoln's-inn-fields a straight thoroughfare might be opened up Southampton-row to the Euston-square, and other great railway stations. Mr. Shield's plan would be enormously expensive, and he believed unnecessary, particularly as he had made no calculation of the effect which would be produced on London traffic by the Embankment when completed. However, a very good route might be obtained, at much less expense, from Piccadilly, up Long-acre and Great Queen-street; turning into Holborn at the eastern end of Lincoln's-inn-fields. This would give a good main road east and west, from which access to the law courts would be easy. He should mention that the approaches which he had provided for in his competition designs, must not be taken to be essential to the completion of the present plans.

Mr. HYDE CLARKE remarked that one great advantage possessed by the Embankment site, would be that the traffic would be 32 feet below the level of the ground-floor, so that the noise would hardly be perceived.

Mr. STREET said that would hardly be so, if there were a thoroughfare through the building up to the Strand, which would in fact occupy the whole ground-floor of one side of the buildings; whilst the noise and vibration from traffic in such a covered street would undoubtedly be felt in the rooms above it. It would be necessary, he thought, to put this at the end, which would of course reduce the area of the site by 30,000 or 35,000 feet.

Mr. FIELD said it was a great mistake to suppose that access was required by the public. The Law Institution had ascertained that 92 per cent. of the persons attending the courts and offices came from the chambers of solicitors and counsel. Before anything was decided, that point ought to be inquired into and settled as it easily might be. It was a matter of fact of the utmost importance to the decision of the whole subject.

Sir C. TREVELYAN said there could be no doubt that the Thames and its Embankment would be the finest thoroughfare in the world; there would be a footway, carriage way, rail, and river steamers. The great mass of people attending the courts were the public, and this site, with its excellent ready-made approaches, would afford them the maximum of advantage with the minimum of inconvenience. If the courts were erected in Carey-street, it would be absolutely necessary to have a direct communication westward, to Long-acre and Piccadilly, and others leading to Holborn, at the north-west and east corners of Lincoln's-inn-fields, besides a direct communication with the City across Farringdon-street.

Mr. GREGORY, M.P., said it would be much more economical to bring witnesses coming from hotels to the Embankment site by the underground railway, than to the other site in a cab.

Mr. FIELD begged wholly and emphatically to deny that the great mass of people attending the courts were the public. Here was an issue of fact. Try it as such,

like sensible men. He also said the witnesses generally went to the solicitors' offices before attending the court. As to the public, it was a great mistake to suppose that they frequented the courts of law. There were a few habitués both in the City and at Westminster, idle, dirty people, who had nowhere else to go to, and were a positive nuisance. Dr. Percy had stated that one of the greatest difficulties in having pure air in the courts at Westminster was the filth of the persons who returned day after day, as they found a warm and comfortable place to pass the day in. The new plans proposed to give all these people stalls, so that at least the air might pass round them and between them. He begged that every member of the Committee would be very careful before he proceeded to form opinions about the extent of access required by the public, as distinguished from the legal profession and the suitors and others who went to court from their chambers.

MR. HYDE CLARKE remarked that when he was subpoenaed to Westminster, he did not go to Bedford-row first.

MR. FIELD said, No, because in the present situation of the courts it would be sometimes impossible, but the object of concentration was to bring them into proximity with chambers. What was the history of the local changes which had taken place in the administration of the law? No man was less inclined to depart from ancient tradition than Lord Cottenham, and few thought more of the importance and ease of the Lord Chancellor's office; but in 1848 he was, for mere shame's sake, obliged to remove the sittings of the Chancery Court from Westminster to Lincoln's-inn, no doubt at considerable inconvenience to himself, simply because it was found impossible properly to conduct the business so far from the chambers of counsel. It was of the utmost importance to the speedy and proper administration of the law, that the moment a counsel had finished the matter in which he was engaged in court, he should be back in his own chambers. There should be the facility of having an electric bell to every counsel's chambers from the court, and so a power of getting him into court in two or three minutes' summons. At one time it was proposed to build courts in Lincoln's-inn-fields, which was offered for nothing, but although he himself would have been a considerable gainer by the scheme, he could not conscientiously give evidence in favour of it, because of the injustice which would be committed upon counsel whose chambers were in the Temple, and, what was the same thing, because of the mischief that injustice would do to the suitors. Of course the suitors were to pay for all these improvements, and why should their business be delayed by being taken away from the Carey-street site, which was the very Acropolis of the law? Sir C. Trevelyan's scheme would no doubt benefit the Middle Temple, and that was why they supported it, but no one else did. At present Lincoln's-inn had a great advantage over the Temple, and had even opposed the present scheme for some time on that very ground. In all these matters the interests of the suitors ought primarily to be considered, and there could be no doubt that these would be best consulted by a thorough concentration of all the offices connected with the administration of the law in one spot, where the officials would be constantly under supervision. The business of the Middlesex Registry, for instance, could only be controlled by the three Chief Justices and the Lord Chancellor acting jointly, and, practically, these four judges would not meet together once in 25 years. The real law reform to benefit the nation would be a reform, not in abstract law, but in procedure, one by which all disputes would be settled speedily, and this could only be accomplished by concentrating the courts and legal offices in close proximity to the chambers of counsel. There was a circular issued that morning by the Metropolitan and Provincial Law Society, in which these points were fully stated. They referred to the decadence of Gray's-inn as a

habitat for counsel, members of that inn being obliged to take chambers elsewhere, so as to be near the courts, and also to the failure of the Equity Exchequer, which actually offered an inducement to solicitors to take business there, by an addition of 20 per cent. to their fees, but, owing to the inconvenient distance, that court had to be abolished. They also referred to the removal of the Chancery Court from Westminster to Lincoln's-inn. When all these things showed that there was a power of attraction between the courts and counsel's chambers as strong as that of gravitation, it would be absurd to attempt to separate them. The Master of the Rolls had even doubted whether he should be able efficiently to control his officers who had charge of the records if his Court were removed so far from the Rolls Record Office as to the Carey-street site, probably not 100 yards.

Sir C. TREVELYAN said he agreed with most of the principles enunciated by Mr. Field, but differed from him as to their practical application. What he had written on this point was as follows:—

Accessibility of the Thames Embankment Site to the Legal Profession.

For the reasons already given, the Embankment site will be much the most convenient to those members of the profession who reside, or have their offices, or both, in the City, the West-end, Southwark, Lambeth, or any part of Kent or Surrey. With the exception of Hampstead, the suburbs to the north of London are not popular; but Surrey is full of the suburban residences of lawyers, and especially of solicitors.

The Inner and Middle Temple will be greatly benefited by the change from the Carey-street to the Embankment site, because, instead of having to ascend the hill to the Strand, and then to climb from a lower level to a bridge over the Strand—which has been directed to be made "loftier than the existing arch at Temple-bar, in order that the traffic of the Strand through the arch may be facilitated"—the Templars will pass and re-pass, in their wigs and gowns, between their chambers and their courts, with nothing but Fountain-court to cross.

Those who have chambers or offices in Lincoln's-inn, or other places to the north of the Carey-street site, will be farther from the new courts *only by the width of that site and of the Strand*, which will be relieved, by the opening of the Embankment road and railway, and by the improvement of Holborn, from the excessive traffic with which it is at present crowded.

So far, I have assumed that the change will be confined to the substitution of the Embankment for the Carey-street site; but it is certain that, if this measure is resolved upon, other changes must follow. In answer to question 713, Lord Westbury stated to Sir George Lewis's Commission:—"It is right that the Commission should know that probably the reason of the great distinction between the wealth, the numbers, and the extent of Lincoln's-inn and the other societies is due to the circumstance that, in Lord Hardwicke's time, an application was made to the Middle Temple by Lord Hardwicke, as Lord Chancellor, for leave for the Court of Chancery to sit in the Middle Temple. The benchers of the Middle Temple of that day were unwise enough to refuse that application; the benchers of Lincoln's-inn, wiser in their generation, received it with pleasure, and the result has been that there has grown around the sitting of the court the greatest possible demand for chambers and accommodation, which has augmented the wealth of Lincoln's-inn twenty-fold above the wealth of the other societies. It is not an unnatural thing, therefore, that Lincoln's-inn should be desirous of preserving that advantage." If "the greatest possible demand for chambers and accommodation" grew up around the Courts of Equity only, how much more will this be the case when all the Courts—Common Law, Admiralty, Probate and Divorce, and Bankruptcy, as well as Equity—and all the legal offices shall be concentrated on the Embankment site. The entire space on the north

of the Strand, from Chancery-lane to Wellington-street, including the whole of the Carey-street site, will soon be occupied by buildings constructed according to the most improved methods, for barristers, solicitors, surveyors, architects, law booksellers, law stationers, printers, lithographers, and other professions and trades connected with the administration of the law. This will be a real concentration, because business will be quite as much facilitated by bringing the solicitors' offices into the neighbourhood of the courts and offices of law and barristers' chambers, as by bringing together the different courts and law offices. The new buildings will also furnish a maximum of accommodation, with every convenient modern fitment of lifts, telegraphs, &c., whereas those which will be vacated are of an antiquated pattern, belonging to a time when the value of land in this part of London did not require that it should be made to bear as large an amount of building as possible.

No one who is acquainted with the scattered nature of the legal settlements in this part of London, can doubt that this concentration will be extremely conducive to the convenience and advantage of the legal profession, and of the public at large in its connection with that profession. If the courts were placed on the Carey-street site, the change would end there; but, if they are placed on the Embankment site, then the Carey-street site will be available for this further great and final consolidation. There will also be a great incidental gain to the public. It is well known that an extensive displacement of the working classes (in which I include not only ordinary labourers and artisans, but small tradesmen and others of like social grade) has already taken place in the direction of Holborn and the City. Owing to the numerous clearings now in progress, or shortly about to be commenced for the railways centering in the City, and other purposes, this process will soon be carried to a much greater extent.

It is a mistake to expect working men to sleep out of town, and to go backwards and forwards by rail. Persons who can afford to keep up two establishments, and to have two meals a day dressed for them in different places, and who profit by the air and exercise of the double journey, owing to the sedentary nature of their occupations, should have their homes out of town. The working man, who works hard all day in the open air should live near his work.

There is room in Gray's-inn and Bedford-row, and the intervening open space of Jockey-fields alone, for a much-needed market for that part of London, as well as for a working man's town, provided with everything necessary for health and recreation. But although the largest, this is only one among many ancient sets of chambers and public and private legal offices beyond or in the immediate neighbourhood of Holborn. They are all shown in the map of the legal district annexed to the report of Sir George Lewis's Commission. How unfit these distant sites are for the purposes to which they are now applied, may be seen from the following remark in the statement of the Council of the Incorporated Law Society on the subject of the suggested change of site:—"The tendency of men engaged in similar pursuits to aggregation is natural and inevitable. Whether their pursuits lie in the direction of law, or commerce, or manufactures, the result is the same. They are drawn together by the irresistible attraction of convenience. This tendency is very strikingly exemplified in the legal profession by the members of Gray's-inn. It is believed that there is not now a single barrister of that inn practising in the courts of law or equity whose chambers are in his own inn of court. Every one of them has been compelled to seek chambers in another inn of court to bring himself within the range of his brethren of the bar."

On the other hand, Clifford's-inn, both Serjeant's-inns, the entire Rolls estate, the Law Institution, New-square, Portugal-street, Cook's-court, Carey-street, Clement's-inn (which would be saved from destruction),

Danes'-inn, New-inn, and Lyon's-inn (which, although no longer an inn of Chancery, has not yet been finally appropriated to any other purpose) would be incorporated, with the Carey-street site, in the Consolidated Law District; and buildings of the same character would soon extend along the north side of the Strand, opposite Somerset-house, as far as Wellington-street.

This re-arrangement would be much facilitated by a great incidental advantage, which would be obtained by the adoption of the Embankment site. There is a great want in London of lateral communications from south to north. There is nothing that deserves that name from Farringdon-street to Regent-street. But if it shall be determined to place the law courts on the Thames Embankment site, we shall then have the command of both sites, and shall be able to make a thoroughfare, sixty feet wide, from the steamboat pier opposite Essex-street, through the Embankment site, the Carey-street site, Serle-street, and the east side of Lincoln's-inn-fields, to Holborn, without any additional expense beyond taking down one side of the narrow passage at Great Turnstile. The Cook's-court Company, which has undertaken to widen Serle-street, and rebuild the block of houses between Carey-street, Portugal-street, and the south-eastern end of Lincoln's-inn-fields, will be benefited by the change of site, because, instead of a *cul-de-sac* ending at the law courts on the Carey-street site, they will have an open thoroughfare, which, after passing through the Carey-street and Embankment sites, will terminate in the Embankment-road, the Metropolitan Railway, and the Essex-street steamboat pier. Between the Strand and Lincoln's-inn-fields this street would be constructed with shops below and chambers above; and, unquestionably, both shops and chambers in such a situation would be extremely profitable. This communication should be extended, through Bedford-row and Great James-street, to Guilford-street, from which several streets go direct to the North Western, Midland, and Great Northern Railways, and thus the entire north of England would be placed in immediate intercourse with the Thames Embankment, which will be the centre of the London traffic.

By the incorporation of New-square in the consolidated legal district, Lincoln's-inn would be reduced to manageable proportions; for it is admitted on all hands that Old-square is only fit to be pulled down, while great part of Stone-buildings has been virtually detached from the Inn, by its occupation as judges' chambers and law offices. It has been arranged that all the public offices shall be removed from Somerset-house, except the Inland Revenue, which occupies a detached wing on the side furthest removed from the Embankment site; and the transfer of the Admiralty establishment to Whitehall is actually in progress. All that is really required, therefore, in order that the Society of Lincoln's-inn may be established in Somerset House, is that ranges of chambers should be built on the site of King's College, from the Thames to the Strand, and that the quadrangle of Somerset House, including the unfinished northern front, should be fitted for the same purpose, the latter according to the plan best suited to such a situation, with shops below and chambers above. So great is the demand for accommodation of this description in the immediate neighbourhood of the courts and offices of law, that there would be no difficulty in borrowing, at a low rate of interest, on the security of the buildings themselves, any sum that might be required for providing it. On the other hand, Stone-buildings and the hall and library of Lincoln's-inn would be admirably suited for King's College, while Old-square should be treated with the respect due to its antiquity, and to the many interesting associations connected with it. The chapel and gateway, and a sufficient section of the old chambers to serve as a specimen of this ancient style of domestic architecture, should, of course, be preserved.

The superior direction of the Inland Revenue and Customs will probably be consolidated at Westminster;

but, as I have already said, the stamping of legal documents might, with great public convenience, be conducted in the basement of the law offices on the Embankment site, where this establishment might be much better accommodated than it is at Somerset House. The height of this basement will be equal to that of Somerset House; but, while the Somerset House substructure seems to have been originally intended only as a necessary support for the building, the substructure of the new law courts may be expressly adapted for carrying on the stamping processes, and many other useful purposes.

It is impossible to read the evidence before Sir George Lewis's Commission on the Site of the Courts and Offices of Law, without seeing that the ideal in the minds of the Commissioners and witnesses was that the courts and offices should form the central building, and that the two great inns of court should be the wings. This ideal is very imperfectly realised in the Carey-street plan, for, instead of being placed on either side of the courts and offices, the Temples and Lincoln's-inn are loosely tied to them at two corners by bridges, one of which would be in the highest degree inconvenient. But nothing can be more perfect than the arrangement on the Embankment site. The courts and offices would be in the centre, with Lincoln's-inn and the Temple on either wing, all three fronting the Thames; and, on the other side, would be the Record Department on the Rolls Estate, Clifford's-inn, Serjeants'-inn, the Law Society's-inn, New Gray's-inn, Clement's-inn, New-inn, and the large number of law booksellers, law stationers, printers, lithographers, &c., who are as necessary for the due administration of the law as the barristers and solicitors themselves. This plan completely realises the idea alluded to in the statement of the Incorporated Law Society in the following words:—"All projects for the improved administration of the law that have been favourably received, point, more or less, to one great legal establishment, under an united governing body, all the legal offices being branches under its superintending control."

I will now read another extract from Mr. Whitmore's letter:—

"The professional advantages of the Carey-street site and the professional feelings respecting it, are not to be taken exactly as represented in the solicitors' statement. These gentlemen assume a very high tone indeed. They exclude all the world besides themselves from a right of judgment in the matter. They exclude, also, every embellishment to the metropolis, as foreign to the question. They regard themselves as constituting the whole body of their own profession. They invoke the right of imaginary 'suitsors,' whose 'fund,' they say, is the purchase-money of the first proposed site. All this is fallacious. They form, indeed, a very respectable association of persons, having a strong local pecuniary interest in the adoption of the particular site. They, and others like them, are swayed by this and similar interests. Moreover, they have for some time been identified with the project, and cannot be expected to turn with equal favour to any other. Their advocacy of the plan is the fondness of parents for their offspring; the interest which every man feels in his own property.

"But no misconception should exist as to the extent, any more than as to the value of this professional support. The fact is that the profession is divided on the subject. With regard to the solicitors, no doubt the large body clustering around Lincoln's-inn have a leaning towards the site which would put them in closer neighbourhood to the law courts; some, because it would facilitate their business; some, because it would improve their property. But these do not form the whole profession. All who are in the west of London, all in the east, would really be more benefited by the other scheme. There would be no comparison between the accessibility of the two. But the voice of these more distant and scattered practitioners is not likely to raise itself, partly

from the want of combination, partly from a reluctance to make a manifestation hostile to their own brethren. I know this as a fact in so many individual instances, that I have no hesitation in asserting it. I also have had ample experience of this state of feeling among solicitors in my advocacy of the Embankment site. "The same reasons and scruples animate in a certain degree my own branch of the legal profession. Barristers do not combine, and, in this case, there is some delicacy on the part of the Templars about an interference with a project so beneficial to their brethren of Lincoln's-inn. To me, the feeling seems a false one, and I have not hesitated about signing a petition to Parliament in favour of the Embankment site. Similar support to it is given by my friend, the present treasurer of the Temple, who some years ago published a pamphlet advocating the site in question. Were the ordinary means adopted of obtaining signatures to such a document, I doubt not that it would be very largely signed, notwithstanding the reserve which, as I said, is entertained out of deference to the opposite interests of Lincoln's-inn."

Mr. FIELD said that before any decision were arrived at they ought to receive evidence as to what class of people access was really required for. Sir Charles had joined issue with the Law Society on points of fact. Let the Committee resolve itself into a jury and try the issues of facts honestly, and without allowing the architectural *cacœthes* to bias them, and there could not be the smallest doubt what their verdict on the points of fact would be. It was absurd to talk about the residences of the professional gentlemen, because they must all come to their chambers and offices before going into court. The courts were not ordered by the Act of Parliament to be removed from Westminster and the City because the room there was wanted for any other purpose, but simply because they were too far from the law chambers. Solicitors and attorneys had the care of the suitors' purse, and were the best and only judges of what was for their pecuniary and official interest. The quicker legal business was got through the better it was for the suitor, and the more profitable to the solicitors. In fact, the great misery and misfortune which attended legal proceedings, in almost all cases, arose from delay; and it had been calculated that treating the judgment of the court as a promissory note or bill due on a certain day, the concentration of the courts would so far accelerate the day of payment that the discount on the amount would pay for the cost of the building. But this would only be the case if they were put in the right place, and it was only on that ground that the suitors could fairly be asked to pay for it at all.

The Hon. A. HERBERT asked how far Mr. Field's objection would be removed if Lincoln's-inn were removed to Somerset-house?

Mr. FIELD said the objection would only be partially removed. There was no getting over this, that in the case of a building on the Embankment, at the utmost, contiguous chambers could only be provided on two short sides, and only one long, whereas in the other case there were four sides available. Then there was the question of level, which seemed to him to be fatal. He might mention that the Commission, of which he was secretary, had obtained from the principal foreign Governments plans of their best courts of justice, and in all these plans the courts were situated on the first floor. Sir Charles Trevelyan had sneered at first floor courts. He (Mr. Field) challenged any fair man to study the question, and to doubt that the first floor and not the ground floor was the right position. It was the only position allowing at once contiguity of courts to each other, and abundant attendant rooms for each. There could be nothing above the courts; they must have air and top-lights. If this first-floor plan were adopted on the Embankment site, the rise from the Embankment road to the court would be about 53 feet, whereas, if the courts were placed on the ground floor, the public would inevitably make them a thoroughfare to pass

through on to the Embankment. Having mentioned foreign courts, he might add that Mr. Street's plans were infinitely superior to anything of the kind abroad, each having no less than six separate diverging modes of exit. It was one of the first points to determine whether courts should be on the ground or first floor.

The CHAIRMAN remarked that in the case of persons, professional or otherwise, coming by way of the Embankment, they must rise to the level of the Strand, on whichever site the courts were placed, only in the case of Carey-street they would have an additional distance to traverse, and a further height to climb in order to reach the floor of the court.

Mr. STREET said that in the latter case they would come by a sloping road, so that the ascent would not be felt, but in the former they would have to mount a flight of steps.

Sir C. TREVELYAN said that, without any sacrifice of architectural proprieties, a sloping road from the Embankment might be made up to the principal entrance of the building.

Mr. STREET said it would never do to have the floor of the courts on an absolute level with a great thoroughfare like the Strand.

Mr. FIELD said his residence was about on a level with the gallery at the top of the dome of St. Paul's, but it was no inconvenience to gradually mount that elevation in driving home, whereas it would be very severe work to have to mount the steps to the gallery all at once. It was the "peck of dirt" story over again.

The CHAIRMAN said there might be the alternative of a sloping road to the Strand level and a flight of steps for those who preferred it, and in the former case the two sites would be about equal, except that there would be a small additional distance to go to Carey-street.

The Hon. AUBERON HERBERT said the result seemed quite plain, from all they had heard, that it would be useless to place the law courts where they could not be easily reached from the chambers of counsel, and, therefore, it appeared that the transfer of Lincoln's-inn to Somerset House must be taken as an essential part of the scheme.

Sir C. TREVELYAN said that, even if that were not carried out, the whole of the vacant Carey-street site might be covered with well-arranged chambers, furnishing a vast amount of accommodation.

Mr. FIELD—At the expense of the suitors?

Sir C. TREVELYAN said the result would be a profit, not an expense; and would afford a means of concentration far beyond anything at present proposed.

Mr. FIELD remarked that in that case it would be necessary to have the courts on the first floor, in order that they might be readily gained by a bridge over the Strand. He ridiculed the idea that all the chambers of counsel and offices of the law now north of the Strand could be moved to, and congregated in Somerset-house, Wych-street, and Holywell-street, and the transaction be accomplished to a profit.

Mr. STREET, in reply to a question, said that the ground-floor of his proposed building would be below the present level of Carey-street, and only a few feet above the level of the Strand; the variation of levels giving, in point of fact, the advantage of a ground-floor entrance in Carey-street, which becomes a first-floor towards the Strand.

Mr. GREGORY said that by covering the Carey-street site with chambers, the barristers would be brought into closer proximity to the courts than by remaining in Lincoln's-inn.

Mr. FIELD remarked that the benchers of Clement's-inn, unlike the Doctors' Commons people, instead of putting the compensation money into their own pockets, as they might have done, had unanimously determined, at the sacrifice of several thousand pounds each, to exchange it for other land in close proximity, which was now covered with wretched buildings, on which it was proposed to erect new chambers, so that the inn would

remain dedicated for all time to legal purposes, and a great deal of accommodation would be provided close to the courts. He was quite sure that if it were not for the question of ornamenting the Embankment, they would all be of one mind. There was not a doubt that the courts ought to be in the centre of that place where all the chambers were. Why were the suitors to pay for the so-called embellishment of the metropolis?

The Hon. AUBERON HERBERT had been much impressed with the necessity for having the courts close to the chambers of counsel, but it appeared to him that the adoption of the Embankment site would merely require a removal of the latter from Lincoln's-inn to the Carey-street site.

Mr. FIELD repeated that you could not put as many chambers on three sides of a parallelogram as on four, and the expense of all these removals must be taken into account.

Sir CHARLES TREVELYAN then proceeded with his written observations, as follows:—

The Comparative Cost of the Two Sites.

After many months' inquiry and consideration, £1,500,000 was named to me by Mr. H. A. Hunt, surveyor to the Office of Works, as the outside probable cost of the Thames Embankment site. This is absolutely the whole, including, not only the actual building area, but also light, air, and approaches, for, as already stated, it is a peculiar merit of this site that the further space required for light, air, and approaches is all ready-made, and can be had for nothing, that is, without any additional payment beyond the sum paid for the ground on which the building will stand. If the principal approach on the Embankment side had been prepared for the express purpose, at any cost, however great, it could not have been better than it now is without any additional cost whatever. The approach by the Strand will also be quite as good as the demand on that side will require, when the street has been widened to 100 feet. The removal of the Holywell-street "middle row" is common to both plans, and should not therefore be charged to either. It is an improvement which is indispensably required, entirely irrespective of any new law courts. Supposing the law courts to be placed on the Embankment site, we should have the command of both sides of the Strand on the Temple-bar side of St. Clement's Church, and the street could therefore be widened in this part without any additional cost.

As the Embankment site is rather more than 10 acres, £1,500,000 is at the rate of about £150,000 an acre. This, as I said, is quite an outside figure. The strong probability is that the actual cost will be much less. The entire site originally formed the town houses of two famous noble families, with their spacious courts and gardens—the Howard and the Essex family—and when these estates were laid out for building, it was done with great liberality. The principal streets are, even according to the standard of the present day, very wide, and most of the houses have back courts. The entire frontage of the Essex estate consists of three properties, one of which is a builder's yard. With the exception of a few houses fronting the Strand, the ground is chiefly occupied by lodging-houses and private hotels, without much custom, so that the cost of the goodwill will not be heavy. The sum paid for the 7½ acres of the Carey-street site, which was very closely packed, and had many very expensive goodwills, not all of the most reputable kind, was at the rate of about £106,000 an acre, without including legal expenses. I doubt whether the average cost of the Embankment site will be much more.

The sum which has already been expended on the Carey-street site, is stated by the Commissioners at £785,000; but this does not include the costs on both sides, which are understood to have been very heavy, or any portion of the expense of the Commission. I am assured that if the accounts were fully stated, it would

amount nearer to £900,000 than £800,000; but in order that it may be seen that I keep within safe limits, I put it at £800,000.

The cost of the additional land which has been reported by the Commissioners to be required, is estimated by them at £668,000. This also, is exclusive of law expenses. Neither does it include a sum proposed to be paid for the compulsory purchase of property for the Cook's Court Company, and arranged to be repaid by them. I will put down the cost of the additional land at £700,000, making, with the preceding item, £1,500,000; being the same as the estimated *outside* cost of the Embankment site, including light and air, and approaches.

But the solid, important building, called the Law Institution, is only about 20 feet from the site of the proposed law courts, and that entire side of Mr. Street's plan has had to be disarranged, in order to keep the eastern entrance clear of it.

The lofty pile of King's College Hospital, with all its disagreeable and not always safe associations, is only from 25 to 30 feet from the new law courts, on the Carey-street site, and Mr. Street has had to cut off a corner of his building in order to prevent its actually impinging on the hospital. I am confident that it would be the general opinion of architects that both these buildings must be removed, if the law courts were erected on the Carey-street site, and that as soon as the great building began to rise, the necessity of this would become apparent to all. The sum which has been actually laid out on the building of King's College Hospital was stated by the Chairman at £150,000; and the Law Institution, with its dependent buildings on either side, cannot be put at less than £100,000, or £250,000 in all.

For £1,750,000, therefore, building area, light and air would be obtained; but there would be nothing for approaches. On this part of the subject I will content myself with quoting Mr. Street's carefully considered report which accompanied his competitive plan. He says:—

"The noisy character of the Strand side will never be changed. It will always be the side from which the greatest number of people will approach the courts; its use in this respect will be increased when the Thames Embankment and Metropolitan Railway are completed, so that, as far as the public are concerned (including witnesses and jurymen), no doubt by far the larger proportion will enter on this side. We have also to provide for the arrival at the courts of all the judges and others who hold the higher situations among the officials. Most of them will come from the West, and, to a great extent, owing to the over-crowded state of the Strand, they will come from the North-West, and so approach the courts on the Carey-street side. It will be a great object, however, not to add at all to the noise of vehicles in Carey-street; and to this end it is essential, in my opinion, that some important alterations should be made in the roads leading to the north-west angle of the site. These alterations should be of such a kind as that all traffic naturally going to the southern or western sides of the building should be diverted before arriving in Carey-street, and this may be easily done. In point of fact, there are existing lines of streets, now crowded with poor buildings, which must improve when the courts of law are all concentrated close to them, and the value of all property in which would be further increased if only the thoroughfares were judiciously improved.

"The alterations which are most needed are:—1. The making a new street from the corner of Long-acre, following very much the lines already occupied by Great Wild-street and Vere-street, until it joins (2) a short new street formed by a prolongation southward by the western alley of Lincoln's-inn-fields. From the point of junction, the two streets will continue on in a southeasterly direction, until they enter Clement's-inn, and so, skirting the western projection of the site, will turn with its boundary, and enter the Strand just at the end of Wyck-street. At the entrance to Clement's-inn, a

short road to the left will pass between the courts of law and King's College Hospital, into Carey-street.

"Further alterations, of extreme importance, but not so imperatively called for, are:—3. A continuation of the western alley of Lincoln's-inn-fields, through Gate-street, to Holborn, and so in a straight line to Southampton-row, Russell-square; and, 4, a road which, at some distant time, might be found useful, by way of easing the Strand, and which, commencing in the Strand, at the bottom of Wellington-street North, would follow the line of White Hart-street, Blackmoor-street, and Clare-street, cross the new roads (1 and 2) already suggested, and entering Portugal-street, go on into Chancery-lane, and so to the top of the Holborn Viaduct.

"With such streets as these, not only would the traffic receive a much better direction than at present, but, at the same time, the site of the courts of law would become, on most sides, secure from all interruption by noisy traffic, and much easier of access on all sides than it is at present."

What would be the cost of the four approaches reported by Mr. Street to be necessary, viz., two to Holborn, to the north-west and north-east; one to Long-acre, to the west; and another to Wellington-street to the south-west—I will not undertake to say. Those who know any thing about the cost of opening new thoroughfares in London would probably think £1,500,000 an extremely moderate estimate; but, as I have plenty of margin, I will put it at £1,000,000.

Mr. Shields, C.E., in a report which has been laid before Parliament, says that "the great defect of the Carey-street site, which turns the balance against it, is the want of a leading thoroughfare on its northern or Holborn side;" and he proposes to remedy this by making a new wide street "from Long-acre, by Covent-garden and Drury-lane theatres, to pass along the northern front of the Carey-street site, and from thence it would be extended (crossing the Farringdon-street valley by a viaduct) to the end of Cheapside at St. Paul's." Such portion of this proposed new street as is eastward of the Carey-street site is in addition to Mr. Street's approaches, and it would be clearly necessary in order to establish a proper communication with the City (from which a very large proportion of the business comes), if the courts were placed on the Carey-street site. Including the viaduct, it cannot be estimated at less than £500,000, and I will therefore replace the half-million which I struck off Mr. Street's western approaches.

The account therefore stands thus:—

Thames Embankment site, including light, air, and approaches.....	£1,500,000
Property already purchased for the Carey-street site	£800,000
Additional property recommended to be purchased	700,000
Law Institution and King's-college Hospital.....	250,000
Western approaches.....	1,000,000
Eastern approaches	500,000
Total for the Carey-street site, including light, air, and approaches	3,250,000

Being £1,750,000 more than will be required for the Embankment site, everything included.

But, according to the statement of the Incorporated Law Society, the abandonment of the Carey-street site "would involve an absolute loss of half a million" upon a total outlay of £800,000, while, according to Mr. Shield, it would amount to £400,000. This I entirely deny. I am confident that, if the courts and offices of law are placed on the Embankment site, and proper precautions are taken to sell the Carey-street site at its real market value, at least as much may be got for it as was given for it. I might accumulate evidence of the high rents obtained for low, small houses in situations by no means so favourable for legal purposes as this would

be. One, in New-square, Lincoln's-inn, was described to me, only about 25 feet in front, with a ground floor, first floor, second floor, and garret, the aggregate rent of it being upwards of £600 a-year. I lately saw two groups of chambers in Paper-buildings, in the Inner Temple, opening upon the same number of staircases. The aggregate annual rent of one group was £1,670, and of the other £1,790. There are 140 names on the list of applicants for chambers in the Inner Temple, and the demand would much exceed this if there was a chance of getting chambers within a reasonable time. The sets of chambers recently built by the Union Bank, at the corner of Carey-street and Chancery-lane, are not at this present time so advantageously situated as those which would be built on the Carey-street site, opposite to the New Law Courts on the Embankment site; but, although the Union Bank Chambers occupy only about half of the building, they yield a sum of upwards of £1,600 a year. If chambers were built with a careful adaptation to the wants of the present time—some larger and some smaller—but all well arranged and fitted with every necessary convenience—instead of being the dog-holes they often are—as the Major's servant said in Pendennis, “a shy sort of place”—the demand would be still greater. But I will content myself with appealing to the knowledge which every person present more or less has of this part of the subject. The crowded names at the foot of the staircases in the Temple and Lincoln's-inn—three or four to each suite of rooms—and the habit of underletting, carried to such an extent that young barristers often pay a considerable rent for a single small room—tell their own story. This subject is well understood in the City, where extraordinary sums are paid per square foot, and fabulous rents are demanded and paid in advantageous situations, but I contend that chambers for barristers and solicitors in situations well suited for legal purposes even now command excessive rents, and when sets of chambers are built with every modern improvement close to all the courts and offices of law concentrated on one spot, they will yield so high a profit that the Carey-street site may be disposed of for at least the sum which was given for it.

Mr. Whitmore makes some observations on this point which are very significant. He says:—

“The distant solicitors may be immense gainers, as would their clients and others, in one event, if the land now purchased were to be re-sold and made available for chambers and offices. That such an employment of it would be highly profitable, no one can doubt who takes the trouble to inquire what are the rents freely given for chambers in the Temple; and what a noble income is obtainable from say ten sets of chambers opening upon a single staircase. Nor would the same inquiry fail to show him how large a demand—aye, how large and urgent a need—exists for such accommodation. There are, at the present moment, some 140 names of applicants on the books of this society for chambers, which it is impossible to supply; and the want is equally great, or greater, for decent offices for solicitors in a central position. These, at present, are not to be had; and, in their absence, the legal practitioner is compelled to plant himself at a distance, and occupy inconvenient rooms in second-rate localities, unapproached by public vehicles, and hardly discoverable by cabmen. These denizens of Bedford-row, John-street, and such northern regions, or even the more fortunate possessors of cupboards in Southampton-buildings, Quality-court, not to say Chancery-lane itself, would be glad enough to exchange darkness for light—eight-foot square for a space in which they could move and breathe, commodiously stow away their papers and deed-boxes, dispose of their clerks, receive their clients—and all this in a locality lying midway between the great Inns of Court, and close to the courts of law. I cannot imagine a greater boon than would result to them, from the opportunity thus given of obtaining suitable places of business, in

lieu of the miserable holes in which they are now, perforce, compelled to practice.”

The Council of the Incorporated Law Society says:—“It is utterly idle and vain in the general public to imagine that non-professional persons, however intelligent, can form an accurate opinion on the position and arrangement of the courts and offices best adapted to the transaction of the business of the suitors.” To this I entirely demur. There is nothing in the conditions of this problem so removed from ordinary experience as to prevent well-informed persons, not belonging to the legal profession, from forming a sound judgment upon it. Every profession in turn has profited by becoming the subject of non-professional criticism. Even the Church has been reformed by external pressure; and at this moment the military profession, which stands more apart than any other profession, is undergoing, without remonstrance, the utmost freedom of public discussion.

The Council also say:—“And here it may be observed, that the solicitors are the proper representatives of, and are identified in interest with the suitors, who are their clients.”

To this also I demur, if it be implied, as appears to be the case, that the solicitors are, *in an exclusive sense*, the representatives of those who prosecute or defend their rights in courts of justice. The Government, and Parliament, and even the public at large, to which the suitors belong, are also their representatives and natural protectors. Still less can I admit that the comparatively small number of solicitors, occupying offices in Lincoln's-inn-fields and the neighbourhood, who are understood to have a predominant influence in the management of this subject at the Law Institution, are to be accepted as the representatives of all the suitors in the superior courts of law. The members of this profession are distributed over the City, Westminster, the West-end, the south of London, and the whole of England; and they are all equally to be regarded as the representatives of the suitors.

The only remaining point is:—

Who is to Pay for it?

On this point there is a passage in the statement of the Incorporated Law Society with the spirit of which I heartily sympathise:—

“The Council looked upon the object aimed at as one of national concern, and considered that the expense ought to be defrayed out of the national treasury, but they found that successive Governments repudiated altogether this obligation, and insisted that courts and offices were required solely and exclusively for the suitors, and consequently if they were to be erected as proposed, the whole expense must be defrayed by the suitors.

“The undertaking was thus peremptorily dismissed from the category of national works. It was to be the undertaking of the suitors, because exclusively for their benefit.”

The object is undoubtedly one of national concern, and the expense ought, therefore, to be defrayed out of the national treasury. The law courts are not merely for those who at any particular time happen to be suitors in them, but also for all who have any rights to be protected by the due administration of the law; in other words, for the whole people. If anything, those who are so fortunate as to be maintained in the enjoyment of their rights without having occasion to sue, have the greatest interest in the courts of justice; while those who may be presumed to have suffered in their rights, and have to incur extra expenditure in order to obtain redress, are the last persons who ought to have a second exceptional burden placed upon them. All the reasons which follow in the statement of the Law Society, that “concentration is needed for the suitors who are to pay for it,” that “it would be unjust to compel the suitors to pay for a site to which their advisers entertain the strongest objections,” and so forth, therefore fall to the ground.

So far as the monies popularly known as "the suitors' fund" are derived from sums which have been, or may hereafter be properly paid by the suitors, they are the property, not of the suitors, but of the public. If these monies really belonged to the suitors, they would be given back to them, and would not be employed in building the law courts. The interest, not only of the suitors, present and future, but of the public at large, would be best consulted by paying these monies, as they arise, to the Consolidated Fund, like all other public dues, and defraying the salaries, pensions, and other expenses now charged upon the suitors' fund, as well as the expense of building the courts and offices of law, and all other expenses connected with the administration of justice, from annual grants of Parliament. The public would then have reasonable assurance that proper attention would be paid to the due appropriation of these large sums of public money; and the suitor might hope that the special taxes charged upon him, in addition to the necessarily heavy costs of suits, would attract the attention of Parliament, when, instead of being obscurely merged in a court fund, they were credited, like all other taxes, to the public Exchequer. Towards the end of my first letter to the *Times*, I pointed out that this was the proper mode of dealing with these funds, and it will be a happy incidental result of this discussion if, as I have heard is likely to be the case, this course should actually be adopted. There may be occasional oversight and indifference in the House of Commons, but when taxation and expenditure are subjected to the annual revision of the representatives of the people, real grievances cannot long remain unredressed.

One part of the proposed arrangement is so objectionable that it surely will be at once rescinded as soon as public attention is called to it. A portion of the amount required for the building of the courts is to be raised on a redemption annuity, secured upon fees "to be levied on suitors (other than those of the Court of Chancery) using the said buildings." In other words, fresh taxes are to be imposed upon suitors, and these taxes are to be mortgaged for the next fifty years, until the sum borrowed upon the credit of them has been paid off. We should not deal so with any other class of taxpayers. Why, therefore, are taxes upon justice made the solitary exception, and stereotyped for half a century, until a debt, which was never properly chargeable upon them, is paid off?

Mr. FIELD said there was no time to discuss this last head, but there were one or two inaccuracies which it was desirable to point out. In the first place, it was assumed that the Law Society represented only professional men in its own neighbourhood, which was quite a mistake. A great many members lived in the country, and there were also great numbers of City solicitors connected with it. Besides the Metropolitan and Provincial Society were chiefly country solicitors, and they were just as strong in the matter as the other society. This society had just issued a circular singularly applicable to the points the Committee had been discussing. He (Mr. Field) had really been making that circular the text of what he had been saying. It seemed to him that Sir C. Trevelyan proposed to turn legal London topsy-turvy, and to waste millions of the suitors' money, and, into the bargain, to damage them grossly in point of situation, merely to have a raree-show on the Thames Embankment.

Sir C. TREVELYAN said he was ready to qualify that statement, but he believed the members of the Society having offices in the neighbourhood had carried the resolution in favour of the Carey-street site.

Mr. FIELD said that was a great mistake. There was perfect unanimity. He joined issue most emphatically with Sir C. Trevelyan on the question, what his branch of the profession, country, even more than London solicitors, thought, and he demanded to have that question, which was one of bare fact, tried and determined as a question of dry fact, before the Committee came

to any conclusion on this most important matter. If the body which kept the suitors' purse strings was anything like unanimous about the matter, there ought to be an end of all question.

Mr. STREET, from an architectural point of view, did not conceive that the building itself, or London in general, would be improved by the *Embankment* site being selected in preference to the higher one in Carey-street. He had prepared a rough sketch of the general appearance of his design for the Carey-street site which would be presented from Waterloo-bridge. They all knew the great effect which was produced by the upper part of St. Paul's standing up from the surrounding buildings; and his own opinion was that, looking only to his own reputation in time to come, it would be quite as much consulted by putting the law courts on the Carey-street site as on the bank of the river. He believed that the general impression, as to the grandeur of Somerset House, was derived much more from the view of the quadrangle from the Strand than from the river front. He was convinced that it would be damaged by any higher building adjoining it, which would be necessary in the case of courts of justice. There were one or two points which he had hoped would have been touched upon, one being the question of the railway station, which, as sanctioned by the Act of Parliament, would be right across Surrey, Norfolk, and Arundel streets.

Sir C. TREVELYAN said it was proposed to move the station to the end of the building, between the lateral communication with the Strand and Holborn and the steam-boat pier. Strong reasons already existed for increasing the height of Somerset House by an additional story.

Mr. STREET said it would be necessary to make the railway station a part of the building, in order to preserve anything like a good architectural effect; and there would be the danger of inconvenience arising from the smell of the burning coke, and from vibration. Then, if a rising road were constructed under the building, as was suggested, a great deal of valuable space would be wasted. His own opinion was that the proper way of making an access to the building itself and to the Strand from the railway station would be to have an open thoroughfare at the end, and that would at once get rid of about half the additional space.

Sir C. TREVELYAN said that would cut off the building from the Temple.

Mr. STREET said that if they built close up to the Temple they would have to pay for interfering with the ancient lights.

Sir C. TREVELYAN said there was a great deal of open space there, and the Templars were strongly in favour of the plan.

Mr. STREET arrived altogether at the conclusion that the superior height of the Carey-street site gave it the advantage, and the fact of the building being slightly encumbered by other erections he did not consider at all a drawback. On the contrary, it rather tended to make the perspective more picturesque, and to increase the apparent scale of the building. He would further only say at present that the Carey-street site gave a much better and wider opening towards the Strand than the other site; and also that it had the *advantage of wide thoroughfares* all round its four sides, so as to allow of all traffic to the offices being kept out of the building; whereas Sir C. Trevelyan's plan, by doing away with roads on the east and west points, would necessitate all the carriage traffic coming into the internal quadrangles, and so increasing the noise very greatly.

The Committee adjourned to Tuesday, the 23rd inst., at 11 a.m.

INDIA CONFERENCES.

The adjourned discussion on Mr. C. H. Fielder's paper on "Tea Cultivation in India," was resumed

on Tuesday evening, March 16th, at eight o'clock. ARCHIBALD CAMPBELL, Esq., M.D., late Superintendent of Darjeeling, in the chair.

Dr. BARRY said the result of the previous evening's discussion, was to show that there was a great want of confidence both here and in India, as to whether the cultivation of tea in that country would pay as a speculation; but this was easily accounted for when they considered the difficulties which for many years it had had to encounter. He would commence by enumerating some of them. In the first place, when the Assam Company was proved to be successful, there was a great rush of the public into tea cultivation, and as it had happened with railways and other things, over speculation had caused a great depression. Those who were entrusted with the selection of land had not sufficient judgment, and large tracts had been bought which were utterly unfit for the purpose. He was speaking principally of Cachar, in which his own experience had been gained. The second cause was the want of seed; they had to rely almost entirely on Assam, and when the cultivation was commenced, there was very great difficulty in obtaining it. The Cachar Company refused to sell it at all, but as he had had the means of rendering valuable services to that company in his capacity as a medical officer, as a personal favour he was allowed 40 maunds of tea seed. A great deal of discussion had lately taken place in the public newspapers with regard to the adulteration in England of clover and grass seeds, but that gave a very small idea of the extent to which the adulteration of tea seed was carried.

The CHAIRMAN inquired how the seed was adulterated?

Dr. BARRY replied that windfalls were sold, and sufficient care was not taken in selecting the seed, which was of the utmost importance. It also required very peculiar treatment in order to bring it into a fit state for germination. The third cause of failure was that proper men were not selected to carry out the enterprise, and in many cases it was found that when a good man had been secured, owing to the great speculation he resigned his appointment for the sake of a monetary inducement to go elsewhere, and in this way the best plans were sometimes frustrated. It was within his own knowledge that all classes of men, from convicts up to bankers, had been engaged in this enterprise. Fourthly, when he first went to Cachar he was informed that ordinary labour cost about four rupees and three shillings a month, and that the skilled artisan's wages would be six shillings a-month, but the fact was that now he could not get a carpenter under twenty shillings a month, and the wages of ordinary labourers now averaged about fifteen or sixteen shillings. Fearfully great losses were sustained through the plots of agents in Calcutta. It was necessary for every tea planter to employ an agent for selecting his implements. From calculations he had himself made, he found that by exercising great care in this department he had saved one per cent. on his capital. Supposing that every acre represented £40 of capital, which was necessary to bring it into cultivation, 100 acres requiring a capital of £4,000, the saving would be very considerable. Then some of the agents had acted very injudiciously in sending coolies. He had lately had a letter from a manager of a tea plantation complaining that some of the men who were sent up, and who had to cultivate the plants, did not weigh more than five stone; it was quite evident they were utterly unfit for such occupation. Sixthly, they had had a bad market for their teas, the agents in Calcutta not exercising a sound discretion. Only last year he went into the tea marts, and noticing the price at which teas were selling, he had bought in a considerable quantity, which never ought to have been sold there at all, by which he had realised threepence a-pound, which never ought to have gone into his pocket, but if proper discretion had been used should have gone to the tea planter. He had before referred to the labourers being

badly selected, and he would add that 20 per cent. of the labourers sent up to Cachar were not fit for tea cultivation. As he had saved one per cent. on the purchase of implements, so he had saved four per cent. by properly selecting his labour, and five per cent. in sending the tea on to a proper market, which, added together, amounted to ten per cent. clear gain, simply through having a proper agency. There were many tea gardens which just paid their expenses, but if they could save these per-centages there would be a clear ten per cent. profit. Then there were causes detrimental to the tea cultivation which affected the government of India. In the first place they required roads. Not being an engineer, he could not say much as to the best method of constructing these roads, but he would strongly recommend a pamphlet which he had seen that day, by Mr. Login, which described the most suitable means for roadmaking, for a country such as India, which could be supposed possible. Then, again, and this was the eighth difficulty which they had had to contend with, different legislation was required. He had been taken to task for finding fault with the Emigration Bill, but he considered there were grave defects in it. They wanted to be under the same conditions as the Ceylon planters; that small courts with stipendiary magistrates should be appointed for the purpose of meting out justice between the employer and employed. Instead of that, however, the government had appointed what was called a Protector, and the injurious effect of that was almost impossible to describe. He understood that in Assam, where the agent appointed possessed very great abilities and a very humane disposition, good results had followed, but in other parts they were so prejudicial that for the last two years he believed that part of the Act had been allowed to remain inoperative. He would now venture to make a few suggestions as to how tea cultivation should be made profitable. He had not the slightest doubt that this could be done, for he had done it. The first thing necessary was to have an honest and judicious agent; and secondly, the manager must be not only honest and industrious but intelligent and skilful, and these qualifications were to be obtained. The best men for such positions were skilled gardeners. He had sent out four such men from this country to India, and they were all doing well, and made tea-gardens pay. It had often happened, however, that directors of companies sent out their sons to fill such positions, and that system of nepotism had been one of the greatest causes of failure. With regard to the coolies they would suffer almost any inconvenience, provided they had good water; and it had been found that on those estates where this point was not attended to the mortality had been very great. Then the labourers must be properly housed and fed. Rice and other necessities must be provided for them at a cheap rate, and they must be properly clad. These matters were of the greatest importance, although they had often been entirely neglected. For instance, the huts were generally made of the most perishable materials, and covered with grass; when the hot months came on they became so dry and parched that the slightest thing would ignite them; and then if the natives were burned out just before the rainy season set in they speedily fell victims to diarrhoea, dysentery, and cholera. He believed that felt, which was most extensively used in England, would form a most admirable substitute for thatch for these huts, as it was not easily ignited; being a non-conductor, it would be found equally as cool as thatch. All these matters must be attended to, from motives of economy not less than feelings of humanity. Again, there were many things to attend to in the culture and manufacture of tea. Great advances had been made in Cachar in the way of trenching, hoeing, and manuring. Last year experiments had been tried on a considerable scale in the way of making an 18-inch or 2-feet trench, and filling it in with manure, which were found to answer admirably, giving an increased crop to the extent of 30 or 40 per cent. Then, in the manipulation of tea, they

had now given over in the best gardens the system of firing, and also of putting the tea in heaps, by which it sometimes fermented and turned sour. It was now dried in the sun, which rendered it flaccid and fit for rolling, and then dried rapidly over charcoal. This plan was found to succeed admirably, the tea being of a very uniform standard. He might mention that he was present at the last sale in October, before he left Calcutta, when the teas of that meeting averaged 2s. 9d. per lb., and he had since been informed that the quality was very superior. With regard to the cultivation of tea, they should not be guided by the opinion of brokers in London who, no doubt, acting to the best of their judgment, sent out instructions as to what kinds of tea should be made. The fact was, they must make the tea as the leaves came. If they found that the plants brought forth a flush of leaves which it would not be injurious to pluck, they should take them and manufacture them into tea, but if it would injure the plant to take them they must not do so; the only safe guide was to follow nature, and by so doing, they could not fail of obtaining the best results. Returning to the road question, he might remark that various memorials had been presented to Government for assistance, but there was one fund on which he thought they had something like a claim. It appeared that there were now 35½ lacs of rupees lying in suspense, raised from the sale of waste lands, which the Government did not know what to do with, and he thought it would be only just that out of this fund some assistance should be given in bringing labour into connection with the land which required cultivation. This amount had accumulated since 1858. He hoped, therefore, that a memorial would be presented to Government for this purpose, and also to alter the system of the Protectorate, or at least not to allow it to remain in abeyance as at present. In conclusion, he would say, that he had no doubt of tea cultivation being made to pay, for he knew an instance in which a tea garden had paid 25 per cent. on the capital only last year; people, therefore, who had invested money in tea should not despair, but they must go in for retrenchment, for honest and able managers, and look well after their own interests.

Mr. HYDE CLARKE asked whether there was any system in India with regard to the wages of the labourers, by which the superintendents had the means of diminishing to any considerable extent the earnings of the labourers, either by supplying them with provisions, or in any other shape? They had not yet had brought before them the quantity of tea consumed in India itself. The consumption in England was estimated at 8,000,000 lbs., but it would be very useful to have some idea of what was the amount used in India, and also what was the proportion of Assam tea recommended for mixing with Chinese. He should also like to know if anything had been done in the way of utilising tea seed oil?

Dr. BARRY said he had extracted oil from tea seed, but it could not be done at a profit. With regard to the mixing of tea, it was all a matter of taste. He preferred pure Cachar.

Mr. HYDE CLARKE would like to have some information on the wages question, and stated that on one occasion, when he had 1,000 labourers employed under him in a foreign country, he found, after some inquiry, that they only got half their nominal wages. The fact was that, out of five coins coming to the men, one was taken by the head man or superintendent, another by the time-keeper or check-clerk, and another went to the "tommy shop."

Mr. HOBNES said that in Kumāon the sedar, or overlooker, took one anna in the rupee ultimately, which the coolies were willing to pay, but when he was a bad man he very often took as much as two annas, which is one-fourth of a rupee.

Major-General CLARKE remarked that this was not confined to tea cultivation.

Mr. HORNE said he had seen a good deal of tea planting in Kumāon, but there was no importation of coolies, the

labourers there being, generally speaking, natives of that part of the country, though in some places it was very difficult to get them. The rate of wages averaged from three to six rupees a month, or from six to twelve shillings. The commoner or coarse kinds of tea sold for about 12 annas a pound or eleven ounces, or at the rate of 18 pence per English pound, while the finer qualities sometimes sold as high even as 4s. a pound. It was found that the local sale of tea paid much better than exporting it, and they had lately been trying to imitate the brick tea, so much in use in Thibet. This was found to contain a small quantity of opium, and was mixed up with various gums. It had been successfully imitated, and by the last reports he understood that it was finding considerable favour in Thibet, and even as far as Bokhara. It was also selling to some degree in the Punjab. He believed that the demand for tea among the natives was incalculable—speaking of the plains, not the hills. The greatest treat they could give a servant was a pinch of tea, and this was one of the things which it was always necessary to keep under lock and key. Mahomedans, Buddhists, Hindoos, and Tartars, all drank tea, and he believed the demand would be sufficient to absorb the whole amount produced if they could get it at a fair price. It was considered by the natives a cure for all diseases under the sun, and was readily taken by all castes, from the Brahmins downwards.

Mr. HYDE CLARKE remarked that, when at Constantinople, he had opportunities of seeing representatives from most parts of Central Asia, and he found that they all possessed tea-drinking populations. There was one street in Constantinople almost entirely occupied with tea shops, and even the Turks themselves had a great disposition for it.

Major-General CLARKE said he was not a practical tea planter, but he had an interest in the subject, being a shareholder in a tea company. In speaking of tea cultivation in India, he thought they must separate the great tea-growing districts of the Himalayas and some minor belts, which spread from the Brahmapootra to the Indus, from the lower provinces, such as Assam and Cachar, the conditions both as to the sale and the prospects being very different. He thought that Assam, Cachar, Chittagong, and such districts, must look to Europe and Australia for a market for their teas, and they must consider that these countries were almost undiscovered. There was no local labour available for the cultivation, and he thought it might be worth consideration whether, if inducements were held out to them, the Chinese would not come and take part in this industry, with which they were so well acquainted. They were found to emigrate freely to California, Australia, and many other places, and if some of them could be introduced to the tea-growing districts of India, he thought it would have a very great influence. Mr. Bainbridge had told them that the cost of producing tea would be 1s. 3d. per lb. He did not presume to contradict that, but he thought that such a result must be arrived at under very great difficulties. Cachar and Assam required associated enterprise, there being so much trouble in getting all the necessaries for action, but in Kumāon, Kangra, and Chatanagpoor he thought the conditions were very different; Kumāon was not so well known as Assam, but there and in Kangra, he believed, there was a large tea-drinking population, and they were more favourably situated for supplying it to the neighbouring countries; and it was well known that all the Mongolian races appear to have a craving for it. All the men in the hills who could afford it used it as an article of diet, mixing it with opium, and sold and used it in various other ways. He had the honour of serving in that district for some time, and was informed by the chief engineer that the quantity of tea that came from Kurrachee to Umritsur, and was sent on from there to Cashmere, was 160,000 lbs. weight in 1853. The company, in which he was a shareholder, sold tea at nine annas a lb., and Mr. Fortune estimated in 1851 that tea could be grown for from 4d. to 6d., and in 1853, the

first year in which any attempt was made to grow tea in Kangra, Dr. Jenkinson made the same estimate as to the cost of production. He did not know whether it could be grown for so small a sum, but the opinion at which he had arrived, from the best information he could obtain, was that it could be produced very well for ninepence per lb. The tea cultivation had generally been carried on in these provinces by military officers, who of course worked at a disadvantage. He knew one gentleman in Calcutta who had a large tea garden managed by his brother, a military officer, and who was just on the point of abandoning it, when he sent to England and obtained the services of a nobleman's gardener who came out and very soon put every thing in a prosperous condition, and the tea garden was now answering very well. Another gentleman found that a great deal of time was wasted in sifting the teas, and on sending a specification of what was wanted to Messrs. Ransome and Sims, they sent out a machine at a cost of £25 which did the work admirably. He believed it was only a question of time to make the tea cultivation eminently prosperous. As for the qualifications mentioned by Dr. Barry, they were requisite to success in any business. His own opinion was that one reason for want of success was the great ignorance prevalent on the subject. Mr. Thompson thought tea would not give any yield in cold countries, while Mr. Fortune said the finest kinds of tea were grown in China amongst the snow; that the Kangra tea was superior to that of the Kumâon, and there was no doubt of the climate being much colder. His opinion was that Kangra and Kumâon might furnish tea for upper India, but for capitalists who wished to secure dividends, Cachar and Assam were the best places for their enterprise. If, however, a young man, with a limited capital, wanted an occupation, and a pleasant climate, which would give him work to do and yield him a fair return, he would advise him to go to Kangra or Kumâon where the climate was unequalled. In conclusion he would suggest whether it would not come well within the province of the Society of Arts to offer a medal for the best essay on tea cultivation. He believed it would have the effect of eliciting the information which must be possessed by many men of intelligence in India, but which was not attainable to the general public.

Mr. THEOBALD said he was part proprietor of a considerable tea estate in Dherra Dhoon, which, he was sorry to say, had turned out anything but profitable, and they really considered that all the capital they had employed was virtually sunk. The Dhoon was a large tract of country of as great fertility as any in India, and within the last 35 years had been cleared from forests and jungle. There were several tea gardens and various properties in the Western Dhoon, and when he was there some few years ago he inquired respecting them, but the general opinion seemed to be that they gave great promise at first, but ended in disappointment afterwards. The Dherra Dhoon Company started some years ago with a large capital, in £10 or 100 rupees shares, but they fell to 50, 40, 30, 20, and, by the last quotation, he saw they were down to three rupees, or 6s. per share, the nominal value being £10. He did not know what was the cause of this failure in that district, whether the growth was slower, or because the rainfall was more uncertain, but such was the fact. The portion in which he was interested was at the eastern side of the country, which had not yet been cleared, but was in great part, even yet, jungle, and, therefore, they had to contend with that disadvantage. Their first failure arose from white ants, and the next from the scarcity of rain. The Dhoon was about 1,900 or 2,000 feet above the level of the sea, and formed nearly a perfect plain; and his own opinion was that some years' cultivation and expenditure of capital and labour upon it would be necessary before the land would be fit for tea cultivation. One of his partners had some property in Kangra, and in a letter he had lately received from him he stated thus:—"I have about 100 acres in the

Kangra Valley, and this year I expect to realise about £300, after paying all expenses. I have only a native superintendent, at 20 rupees a month. He makes very fair green tea, which he sells to the natives on the spot for one rupee and two annas a lb., equal to 2s. 3d. a lb., and has no expense for putting it in boxes or transmitting it. I think this is far better than making for the home market." There was no doubt that if tea could be produced cheaply in India it would meet with a very ready sale. He had paid a great deal of attention to the question, and his firm conviction was that it could be made to pay. Mr. Bainbridge's estimate was that land first under cultivation would produce 220 lbs. weight per acre; the Tea Commission stated that the produce of three maunds, or equal to 240 lbs. an acre, might be expected, but he believed that both these estimates were much under the mark. In 1867, the directors of the Assam Company, who were, of course, well-informed in the history of their own gardens, said that in the next year they expected to produce a million and a-half lbs. from their 5,000 acres, which would be equal to 300 lbs. per acre. Now, the difference between 220 lbs. an acre and 300 lbs. would make all the difference between barely meeting expenses and paying a fair profit, and he had every reason to believe that the production of the Assam Company had been much higher than that stated, reaching nearly to 500 lbs. an acre, whilst a letter had recently been addressed to the Tea Commission, stating that, with the aid of manure, 600 lbs. an acre might be produced. The Zoohrat Company in one year produced 400 lbs. per acre, although, owing to the inferior quality of the tea, their enterprise was not commercially successful. The experience of the Assam Tea Company was very much like that of many other companies—a comparative failure until within the last few years; for the capital that was now called up had all, he believed, been called up in the first 13 years of their existence, and during that time they only paid a dividend of three quarters per cent., and he believed a portion of that was paid out of capital. On the same principle, with perseverance, other companies might be expected to prove remunerative.

Sir CHARLES TREVELYAN, K.C.B., said he attended the conference to a great extent as a matter of curiosity, having no modern experience on the subject to communicate. He saw the first germ of what was now being discussed when a young civilian at Calcutta many years ago, when he was appointed by Lord William Bentinck, in the last few months of his administration, one of the members of the Tea Commission, for the purpose of inquiry into the practicability of growing tea in British India. The first thing they did was to send out circulars to all parts of the country, asking for information, but the utmost they ventured to ask was, whether any plants of a cognate character were grown in the neighbourhood, which would hold out some hope that tea might be cultivated. The answers read were various, but from Upper Assam they read the extraordinary reply that tea itself was growing there in whole forests, and although this could hardly be believed at first, further inquiry only proved the correctness of the statement. A Scientific Commission, as it was called, was organised to go and investigate the matter on the spot, and they found, as it had been stated, that the tea plant was growing in Upper Assam in ancient forests, and he understood that even to this day the tea plants in Assam were of a strong, wild nature, and produced tea of a very strong character, while the finer and more delicately flavoured kinds had to be produced from imported plants. He recollected that one of the suggestions made to Lord William Bentinck at that time was, that he should establish an agricultural school, but his reply was that the instruction given in such places was very exceptional even in England, and that the best agricultural school in India would be the establishment of indigo plantations, and the settlement of Europeans in the country. The first great requisite in tea cultivation was an absolutely secure tenure of land; nothing less would suffice, but it should be remembered that there

were two ways of securing this—either purchasing land out and out by the lump sum, or by paying a certain fixed quit rent. The latter plan had been adopted in the Madras Presidency, and it had many advantages—the government were secure of a fixed annual revenue, and the planter was not called upon to cripple himself at the outset of his labours. In Bengal and Assam the Government had required that the land should be purchased out and out by the payment of a lump sum, but that was not found to answer so well, and, ultimately, a variation had been introduced by allowing it to be paid for by instalments; but even this was not so beneficial in his opinion, as a system of a fixed quit rent. The next Government requisition of course was labour. He recollected Mr. Jordan, a member of the firm in Calcutta, being sent to bring over some Chinese labourers, but he did not think that, on the whole, the experiment answered, partly, perhaps, from difference in climate, and partly because the wages were so low as not to offer them a sufficient inducement. There was an abundant supply of labour in India itself, if it could be made available. There were large classes there who would emigrate to any part where labour was required if only their confidence could be secured, and a sufficient pecuniary inducement held out to them. Great exertions had been made by Sir John Lawrence's Government to bring about that state of things, which was beneficial both to the coolies and to the planters, but there was still room for greater efforts in that direction. In his opinion, all the indications pointed to the conclusion that the tea cultivation would ultimately prove a great remunerative industry in India. In the first place excellent tea could be grown; and in the next place, there was an unlimited demand for it, not only in England but in India itself, and, above all, in those extensive Tartar countries to the north, the population of which were much disposed in its favour. Of course it had to struggle, not only with the fluctuations to which all crops were liable, but with many difficulties incident to all novelties, and, of course, judgment must be exercised in the locality selected for the experiment. He doubted himself whether the Dherra Dhoon was suitable for tea production.

Mr. WILLIAMSON said he had had about 20 years' experience in Cachar, Assam, and Chittagong, having been manager of the Assam and other companies. He could not agree with all which had been said by Dr. Barry; for instance, he did not think that, as a general rule, the dishonesty of managers had affected the tea cultivation; there might be one or two black sheep, as in all other occupations, but such a cause had had no general influence on the present state of affairs. Undue speculation had, no doubt, had a prejudicial influence, but it must be borne in mind that, however exorbitant the price paid for land, that was no reason why the operations carried on upon it should not show a surplus. The main question was that of labour. He would not go so far as to say that it was the province even of a paternal government to assist in the reproduction of population, but, at the same time, considering the state of Assam, they had a right to ask for a fair emigration act. Some of the defects in that act had been pointed out by Dr. Barry, but there were others of equal importance. For instance, a minimum rate of wages (5 rupees per month) was fixed, which the planter was practically bound to pay, whether the coolie did his work or no, the onus of proof being thrown on the planter, who might have to go three days' journey to the nearest magistrate, and then he would have but a poor chance of getting back his money. Besides that, the employer was bound to provide rice at one rupee per maund, whatever might be its cost, and this sometimes occasioned a heavy loss. A great deal was heard of the misery caused by the famine at Orissa, but little or nothing of it in Assam, because the charity of the government was carried out much more efficiently, vicariously through the planters. Under a proper emigration act, with a little encouragement from government, he had no doubt that tea

cultivation might yet become profitable, although he was not sanguine of ever getting 25 per cent. The population of Assam had been much reduced by the Burmese invasions, and their efficiency as labourers was still further reduced by the practice of opium eating. For a long time the growth of opium was permitted, but recently it had been prohibited, the government importing the drug and selling it; and he was sorry to say that 50 per cent. of the entire revenue was derived from this source. The consumption had, he believed, much increased of late; at any rate, the revenue from it had. Another defect in the Emigration Act was that the period of service was limited to three years, all the planters being unanimous in desiring that the term should be extended to five years. The reason assigned was, that the coolies might take service on government works at the end of three years, and thus government came into competition with the planter for the labour which he had been at the expense of importing. If a man refused to work all you could do was to imprison him, which was no disgrace or hardship, and then his contract was broken. They had a right to expect that these anomalies should be removed, and that government should encourage indirectly, if not directly, the emigration of labourers, and then Assam would become one of the most flourishing portions of India; the soil was remarkably fertile, but it required cultivation.

Sir CHARLES TREVELYAN asked if the planters attached much importance to having a strong local authority?

Mr. WILLIAMSON said that was so, the reason being the general belief that the government of Bengal had so much work on its hands that it was incapable of properly looking after the interests of the province, but that if a Special Commissioner were appointed whose reputation and future advancement depended on his proper administration of affairs, they would have a better guarantee for their interests being protected. In reply to another question, he stated that it was the fact that the imprisonment of a coolie cancelled a civil contract, and he had known them refuse even to leave the station where they were landed, preferring to go through court, as it might be called, and then take their chance of getting a fresh bonus from another employer.

Dr. BARRY said he believed the employer had a civil action against the coolie after his imprisonment, but he pleaded *in forma pauperis*, and nothing could be got out of him, so that it came to the same thing in practice.

Mr. ARTHUR HALL said he had been stationed for some time in the Neilgherry Hills, and, although not much had been done there, it was clearly established that tea would grow, the plants attaining a large size, and yielding very fairly. The principal drawbacks to its cultivation were the want of proper means for preparing it for the market, and the great distance from Calcutta. Just when the matter was being taken up coffee was introduced, for which the climate was found very favourable, and it had in fact practically superseded tea. However, the fact which some had doubted was clearly established, that tea would grow well at an elevation of 6,000 feet, and the flavour was very good, very similar to the Assam. The want of labour was the great difficulty, but that was not so much felt as in Assam. Tea had also been grown on a neighbouring range called the Pulney Hills, but it was mostly sold on the spot, instead of being sent to the English market, for want of persons skilled in its preparation. At one time it was proposed to get a few Chinese, and some did come, but the experiment did not answer very well, possibly from the climate being too cold for them. The main reason, however, for the discontinuance of the tea cultivation was that coffee had taken its place. Anyone who was disposed to speculate would find a beautiful climate, and land might be got on easy terms, and with a secure tenure. There were also good roads, and a railway at the foot of the hills. It took about five years, with an expenditure of from £30 to £40 per acre, to bring tea

gardens into proper bearing. He did not know what produce per acre might be expected, nor the cost of cultivation afterwards. He should like to know if this had been calculated elsewhere?

Dr. BARRY said that matter had been carefully gone into in Cachar. The cost per acre in 1868, for all expenses connected with the cultivation, was 120 rupees per acre; this year it would be about 90 rupees.

Mr. HENDRICKS said there was one question of great importance which had not been much touched upon, viz., whether the knowledge and use of tea as an article of diet were at all general in India. Some gentlemen had referred to the demand as unlimited, and they had been told how anxious native servants were to obtain it, but that might arise simply from curiosity. The statistics showed that it was almost impossible as yet that any general knowledge of its use had been diffused throughout India; and upon this, he believed, would very much depend the question whether its cultivation could be profitably conducted. It was not the consumption of the higher classes, but of the million which would make it remunerative. He had been much struck with the extract read by Mr. Theobald, showing that the only profitable cultivation in the district it referred to was where the product was sold on the spot, thus saving all expense of packing and transport. There had of late been some outcry as to the expense of railway transport in India, owing to the costly manner in which the railroads were constructed and it would therefore be well worth consideration, whether some cheaper system might not be devised which would not throw so heavy a burden on the producer.

Mr. HYDE CLARKE said there was one economical point to which he wished to call attention. The rise of wages in India had been alluded to as an obstacle to the growth of tea; that was only part of a general rise both in the cost of labour and other things throughout the East, and although it might at first sight appear detrimental, there was another result which must not be forgotten, that the labourer, having more means at his command, would come into the market as a purchaser. There was not time to go into the matter in detail, but when, at his request, the land question in India was brought before the House of Commons by the late Mr. William Ewart, he had much pressed upon him that a land and emigration system was needed. At the present day instead of having a system which encouraged the migration of labour and a proper supply of land for the improvement of the country, the result was to restrict both. He was sorry they had not been able to hear Mr. Login on the question of roads, but certainly something more ought to be done in India than was going on at the present time in that direction. In conclusion he regretted that the discussion had not brought out more fully the immense moral and social advantages which would result to India from the settlement of European planters.

The CHAIRMAN said Mr. Fielder's paper had elicited a most useful and interesting discussion, the result of which it would be almost out of the question for him to attempt to summarise. It had been carried on with reference to almost all the provinces by gentlemen thoroughly well acquainted with the subject, and the general opinion—differing from that of Mr. Bainbridge, who thought that tea could not be produced under 1s. 7½d. per lb., which would exclude it from the English market—was that the cultivation might be carried on at a profit. Dr. Barry was very sanguine, and not unnaturally so considering that he had succeeded in making 25 per cent. by the speculation. All persons agreed that the great desideratum was more labour and better roads, and it was suggested that the Government had a fund at their disposal, which might properly be applied to this purpose. He was glad to hear that the prospects of the tea cultivation in Dherra Dhoom were improving, especially as he was the first person to plant tea seeds in that district many years ago, from seeds supplied

by the late Dr. Wallich, from plants grown from Chinese seed. They grew admirably 7,000 feet above the level of the sea, and four years afterwards very good tea was made from the plants. After this had been proved, however, it took ten years before any one was willing to risk a farthing in tea cultivation; and then, when speculation spread all over the world, there was such a rush that the thing was overdone, and many were ruined. He did not, however, believe that the past history of the tea cultivation was any criterion for the future. When they began they were utterly ignorant of both the method of making tea and of the value of land. He knew a company which started with the purchase of 40,000 acres, not more than one-tenth of which could possibly be cultivated, and the same ignorance was displayed in other matters. The climate and soil of India were both well suited to the growth of tea, and there was plenty of labour, if it could only be made available, and when these advantages were followed up by European intelligence and capital, they must eventually succeed, and be able to compete with almost any country in the world. Although China had supplied them with tea for so many years, no European had ever seen the tea districts, or the process of manufacture; but now that Europeans were making it themselves, surely their science and skill would do as much for the improvement of that branch of industry as they had for the cultivation of indigo, jute, and other products. He saw no reason to doubt that, in time, Englishmen in India would produce far better tea than the Chinese, and if they could produce it as cheaply, they might drive them out of the market. There were boundless tracts of land at command, the whole of the Himalayas, Assam, and Bhutan, and the only question was how to manage matters economically. They must not begin by paying enormous sums for land, but must remember that the land itself was only of value when labour had been expended on it. There was one advantage, there was no export duty on tea; and in speaking of the Government, they must not forget what had been done by it at the outset. They established plantations in Assam and various other places, to show that tea could be grown, and then, as soon as the matter began to be taken up by private persons, they stepped aside and left it to them. In conclusion, he would say that the demand for tea, if it were produced cheaply, would be almost boundless; both Mohammedans and Buddhists drank it with avidity, so that the only question was how to produce it cheaply enough to meet the wants of the million.

Mr. HENRY ATHERTON writes:—"I can give no exact particulars regarding the tea cultivation in the Kangra district from my own experience, as I left shortly after my plants were put into the ground. My impression is that the best elevation is about 4,000 feet, but the produce will be very varied. There is the greatest difference in the soil on the Kangra Valley, and in my opinion the tea-plant has in many places been planted where the returns will be very trifling. The richer the soil and the better the cultivation, the better the returns. I had 1,000 acres of land in a very good position, but had I remained in India I should not have planted above 250 acres, my belief being that 250 acres of the best land thoroughly cultivated and manured, by the aid of cattle kept on the remaining land, which would have supplied the Kangra troops with beef, would have yielded a better return than the larger quantity. The Kangra soil and climate, at an elevation of about 3,000 or 4,000 feet, would, I think, answer for silk as well as tea, but the quantity of good land available is not great, and most of that the natives hold and will never part with. The advantage settlers possess in the Kangra valley is not so much in the land as in the abundance of cheap labour, any amount of which almost is to be had on moderate terms, and nothing but just treatment is needed to secure a certain supply of labourers. In the Kangra valley the natives in my

time were eagerly taking to the tea cultivation, and by this time probably the tea leaf may be purchased in abundance, and the proper position of the European, in my opinion, is that of manufacturer; a large tea plantation cannot be well overlooked, and carelessness in gathering the leaves may cause great injury. Men paid by the quantity gathered will strip the branches instead of carefully picking each leaf. I have no interest in any tea plantations, and I know not what the prospects may now be. I used to calculate that after three years a return of 20 per cent. might be looked for on the capital invested. I am convinced that there is no such field as India for the investment of capital, but I would not follow the plan adopted by Europeans of endeavouring to be growers as well as manufacturers. I would adopt the native zemindary plan; locate people on the land; get them to grow whatever paid them best, and for which the land was best adapted, and purchase the produce. When the Europeans own the land, there is no danger whatever in making advances, and just treatment will cause thousands to come on your land for protection. Had I remained in Kangra I could have had my land covered with people, whose payments for locations would have paid me better than by tea cultivation. When I resigned the service, the Chepul people wanted me to take land in Oude, and thousands would have gone to settle under me could I have afforded to take them. The success of all measures for the cultivation of the land in India depends on the conduct of the manager and the treatment of the people. There are no people in the world so easily managed as the Hindoos, and thousands from Behar might now be taken to the waste lands in central India to the certain advantage of all parties. Had I £10,000 I should be disposed to go back to India, for my heart is in the country, and nothing would so delight me as to go back as the agent of a company taking up land in Central India. I would return to Chepul, and soon collect men to form a community. I would have a cattle farm, and take particular care not to have a single young fellow on the property, unwilling to treat the natives as fellow men."

MR. JOHN C. WILSON writes:—"In reference to the important discussions on the above subject which have just taken place in the Society's rooms under its auspices, I wished to state to the meeting on the 16th, as a colonial engineer (but I had not the opportunity of doing so), that machinery is now available for accomplishing every operation connected with the manufacture of tea; a complete system, worked by steam power, having been lately sent out to Japan which accomplishes all the operations of drying, rolling, sifting, &c., including even the manufacture of the boxes. This fact not appearing to be generally known to the meeting, or, at least, to the speakers on the subject, and the use of such machinery tending to lessen the demand for that labour, and also that skill in manipulation which, as was represented, is often very difficult to be obtained, will form, I trust, an excuse for my troubling you with this note of it."

The *Times* correspondent at Calcutta, under date Feb. 23rd, writes:—"It is long since I wrote of the prospects and condition of the tea districts of North-eastern Bengal. In spite of dull trade and past complications, and under Mr. Grey's enlightened administration, they are improving. As a rule only joint-stock gardens have suffered, and from causes which are patent to all. Private gardens are, in many cases, this year yielding large incomes to their proprietors. It may be said that wherever the capital paid was not excessive (in some cases it was five and even ten times, and in many cases twice the value) there will yet be a fair return. In spite of what all here considered the ill-judged interference of the Government of India with that of Bengal, which has so delayed and complicated the settlement of the labour difficulty, the condition and prospects of the coolies are improving. The last

report I have received, that of the Central Cachar Tea Company, which has suffered both from bad management and from paying too much for its gardens, states that all the time-expired coolies are gladly renewing their engagements. A very shrewd merchant, who has just returned from a careful inspection of Cachar, assures me that the labourers are prospering as they do in no other part of India. They hold land, keep stock, and can return from the day's task-work before noon, either to look after their own homesteads, or to do extra work for extra pay. Cachar, I admit, is better than Assam—it is more cultivated, it is healthier, it is nearer Calcutta, and it is recruited by small parties from the labour districts in a natural way. But even Assam is improving greatly. There is now a superior class of managers, too, on the spot, who not only have learnt to manufacture the tea, but that the comfort of the coolie is essential to a dividend."

GOVERNMENT GRANTS TO SCIENTIFIC SOCIETIES.

On Saturday, the 20th inst., a deputation from the Meteorological Society of Scotland waited upon the Right Hon. Robert Lowe, Chancellor of the Exchequer, for the purpose of urging upon the Government the claim of the Society to participate in the grant of £10,000 a-year made by Parliament to the Royal Society.

The deputation consisted of Colonel Sykes, M.P., Dr. Lyon Playfair, M.P., Mr. McLaren, M.P., Lord John Hay, M.P., Mr. Miller, M.P., Sir D. Wedderburn, M.P., Mr. Maxwell, M.P., Mr. Mackintosh, M.P., Mr. Macfie, M.P., Major Hamilton, M.P., Mr. Robertson, M.P., Mr. D. M. Home, Chairman of the Council of the Society, and Dr. Crum Browne, a member of the Council.

Colonel Sykes, having introduced the deputation, stated that the society had 58 stations in Scotland, the observations made at each of which were forwarded to the Registrar-General of Scotland, and from the deductions made from these observations the reports of the Registrar-General were in a great degree founded. The society was supported solely by voluntary contributions. The result of its operations, however, was to confer great advantages on the public. They felt, therefore, they had a fair claim to a share of the grant made for cognate purposes, and they sought to participate in it to the extent of £300 a-year only.

Mr. Home said that of the 58 stations which the society possessed the Registrar-General had the benefit of the observations made at 55. The Highland and Agricultural Societies of Scotland were so impressed with the value of the society's work as regarded agriculture, that they were annual contributors to its funds. The society endeavoured to discover the laws which regulated the fluctuations of the atmosphere, temperature, rain-fall, also the temperature necessary for growing particular crops, &c. The bearing of meteorology upon mortality was also very important. A difference of 10 deg.—that is to say, a fall from 40 deg. to 30 deg.—produced an excess of mortality of 1,100 per month in Scotland. The society had stations at the Faroe Islands and Iceland, and the observations made were most valuable and important in tracing the progress of storms and other atmospheric phenomena. The Geographical Society, the Academy of Music, the Royal Dublin Society, and other institutions were in receipt of grants, and this society asked for a portion of the grant for scientific purposes, on account of the great public utility of its work.

Dr. LYON PLAYFAIR said he thought it would ensure economy in the administration of the fund if £1,000 out of the £10,000 were devoted to the purpose of promoting meteorological observations at stations that would be of use to the whole country—the observations to be reported regularly to the Royal Society.

Mr. MACFIE observed that not only the scientific and agricultural, but the commercial view of the question

ought to be remembered. The Government need not apprehend that there would be anything like jobbing—they were, happily, free from that in the north.

The CHANCELLOR of the EXCHEQUER said—The case, gentlemen, seems to stand in this way. First, as regards the grant to the Royal Society, it was made by the late Government, and it has been made in two years, and the ground on which I understand it was done was this, that there were certain meteorological inquiries which it was necessary to make, not only in this island, but in very remote parts of the world, and which it was supposed no private body would be likely to effect. On that ground alone I believe this very large sum was put upon the estimates. It was then decided that it should be put into the hands of the Royal Society, not as a voluntary institution carrying on this kind of work, but as a sort of agency for the Government, the Government feeling itself incompetent to carry on these scientific inquiries. I am not responsible for that proceeding. I do not approve of it. I think it a very bad plan for any government to select societies as their agents, and to give them large sums of money, because the tendency is to give large salaries, and they give rise to a suspicion of jobbing. I give no opinion as to the scientific object. The matter has been entered upon, and I suppose a considerable number of observations have been made. I presume, therefore, it must be gone on with. But I tell you frankly it is a thing I never would have done myself. The grant, therefore, forms no precedent, and has nothing to do with your application. That stands or falls upon its own merits, and it seems to me to be of quite a different nature. The principle you lay down is rather a large one. It is that, whenever a society is formed consisting of highly respectable gentlemen, and which pursues a scientific object, and by that pursuit confers a benefit on the public, it is a case in which Government assistance ought to be given; and you quote certain instances in which Government assistance is given. I cannot say that your instances are wide of the mark. It is hard to discriminate between your case and the case of other public societies which are receiving public money; but I am in principle opposed to all these grants, and it is my intention not to entertain any applications of this nature. We are called upon for economy. Now, the first maxim of economy is that the Government should not be called upon to do that which there is a reasonable probability people will do for themselves; and unless we lay down a rule of that kind, there is no end to the expense into which we may be led. I hold it as our duty not to expend public money to do that which people can do for themselves, and that you can do this for yourselves is very well proved by what you have told me of your proceedings, which are most honourable to you. Perhaps it is not so much for the sake of the mere money that you come here as for the sake of the recognition of Government. Now, if there is one thing I dislike more than the giving of public money, it is being prodigal of Government recognition. I really think people should be content to stand upon their own exertions and the approbation of their fellow-countrymen, without coming to the Government for its approval, as if it were wiser or more able to form a judgment upon these things than the rest of mankind. It is far better to keep the Government within its own limits, and not to involve it in questions of this kind. The Government has no better means of acquainting itself with these scientific matters than have other people. A person may be appointed to high office in the Government who is utterly ignorant of these things, and therefore incompetent to form an opinion, and he must rely upon private opinions probably not very well founded. Therefore my own feeling goes against the system of setting up voluntary societies, pushing them to a certain point, and then coming to Government for assistance, partly in the shape of money and partly in the way of recognition. My experience of it is this, that as long as people are left to their own exertions, like your own Free

Church for instance, they do most admirably well, and they make their money go far. You say you can make the money you spend go a great deal farther than the Royal Society would do. Why? Because you are a voluntary society, watched by your members, and you must give a good account to them of what you do or your subscriptions will fall off. My experience of Government grants is this. People found schools, for instance, with the greatest enthusiasm, and the greatest wish to promote the interests of education and of religious teaching; they make great sacrifices and do a great deal of most praiseworthy work, but from the moment they begin to finger Government money it seems as if it produces a revolution in their minds, and the whole object of the schools seems to be perverted from the real intention of the people who found them, and directed to the getting the greatest possible amount of Government money. Nothing impairs or relaxes the efforts of voluntary societies more than the receiving of Government money, and I really believe that if I were to give you £300 I should be doing you the greatest unkindness of which I could possibly be guilty. Your society is a most valuable one. It confers inestimable benefit on Scotland, and if Scotland cannot appreciate, and will not support you, let the thing drop until the want of your operations is felt. If, however, it can, why ask the Government to extend to you that support which you are perfectly well able, if you choose, to secure for yourselves? I hope you will excuse this lecture, but it is my intention to refuse all grants of this nature. It is not from any wish to do anything that is not agreeable to you that I make these remarks; but I wish to make you understand that it is absolutely necessary, if public economy is to be maintained, that I should decline to accede to your wishes. There really is no case for saying that England is favoured above Scotland in the matter of the grant to the Royal Society, because that grant is given for the benefit of the United Kingdom generally. The observations, whether made in England, Scotland, or Ireland, equally redound to the benefit of the three countries. Where the stations should be does not depend upon any preference for one country rather than another, but upon what, in the judgment of the persons who conduct the investigation, makes one place more desirable for the purpose than another. There is, therefore, no sort of pretence for saying that any favouritism has been shown to England in this matter. But you say that this money which is now given to the Royal Society would be better expended by not being in the hands of any single society, and you ask that I should overrule what has been decided by the Government, and break this grant up into several hands. There might be some advantage in that, as it would bring in the principle of local administration; but whether that be so or not, it is a question which has been decided by the Government, and I do not feel competent from my own knowledge, to overrule it. If it were a question between England and Scotland, I would not see large sums of money spent in England for purposes which were common to Scotland, without giving Scotland her fair share. That not being so, and this question having been decided by the Government, I think as long as the grant continues it would be unwise in this department, having no special knowledge, to interfere, and therefore it is with great regret I must decline to comply with your request.

The deputation then withdrew.

TAXES ON LOCOMOTION.

In the House of Commons on Tuesday, the 16th inst., Mr. Alderman Lawrence, in calling attention to this subject, said he should confine his remarks entirely to those taxes on locomotion which consisted of the duty levied on stage-coaches, omnibuses, and vehicles carrying passengers at a single fare, horses and carriages let out for hire by job-masters, and frys and hackney carriages

plying in the streets of our large towns. He was aware of the difficulty which a private member must have in proposing a remission of taxation, for if he did so before the financial statement was made he was told that the Chancellor of the Exchequer did not yet know with certainty what taxes could be remitted; and if he did so afterwards he was told that the financial arrangements for the year could not be varied. In the one case he was too soon, in the other case too late, and it was difficult to hit the exact time for making such a proposal. The right hon. gentleman was the fourth Chancellor of the Exchequer to whom he should have appealed for the remission of these taxes—a result which would be not only for the interests of the trade, but for the advantage of the public generally. In 1866, the First Lord of the Treasury stated that the whole subject of taxes on locomotion required to be revised, and the right hon. member for Buckinghamshire in 1867, and the right hon. member for Northamptonshire in 1868, without denying that the question deserved the attention of Government, merely pleaded their inability to take the matter in hand, as the revenue was declining and the expenditure increasing. With regard to the stage-coach duty and the duty on cabs and omnibuses, it might seem at first sight that they applied simply to the metropolis, but the fact was that every place throughout the country was affected by them. In 1844 Parliament compelled the railway companies to carry third-class passengers at one penny a mile, but Parliament never provided the means for those third-class passengers to be carried to and from the railway stations, and the duties on stage-coaches and frys remaining unaltered, the conveyance of the poorer classes from the railway stations to their towns or villages often cost as much as the fare for a long distance by the third-class in a railway train. In 1866 the duty on stage carriages was reduced from one penny to one farthing a mile, and the effect of that reduction was to increase the amount of accommodation for travellers to an enormous extent, for in 1867 the increase of mileage travelled over was 1,179,000 miles. It appeared that after the reduction of the mileage duty to one farthing, the sum paid for licenses and mileage duty was still twice as great in proportion to profits as the amount of duty paid by railways. The next duty to which he would refer was the post-horse duty. All cabs and vehicles throughout Great Britain, excepting London, were charged to that duty. In London there was a graduated scale of duty, the effect of which was that the smaller the trade the greater amount of duty was paid proportionally, because the duty diminished in proportion to the extent of the trade and the number of vehicles kept. The hackney carriage duty was confined to the metropolis, and was the most oppressive of the duties levied on locomotion. The House would scarcely credit him when he stated that, while the amount of duty paid by the proprietor of 50 horses and carriages in Birmingham or any other country town was something like £170, in London it was £962 10s. If a small trader should set up a four-wheeled waggonette and drive it twice a week to a market town, or take four or six passengers to a railway station, he would have to take out a stage carriage licence and pay the mileage and post-horse duties, and if he wanted to drive his wife and family a little way into the country he would have to pay on that one-horse carriage not less than £10 18s. He had received numerous letters from various parts of the country where persons keeping a one-horse conveyance for family use and letting it to a neighbouring tradesman had been surcharged and compelled to pay the assessed taxes and also the expenses of the appeal; and the Treasury, when applied to, answered that when the carriage was let out the customer paid the duty, and when it was used to drive the owner's family it was necessary that he should pay it. These taxes must fall most heavily on those who had only one or two carriages, and tended to prevent that locomotion throughout the country which was essential to the general comfort,

health, and happiness of the people. They were not only oppressive in some districts, but perfectly prohibitory in others. They formed five or six different items of account in the revenue, and his proposal would not only simplify the accounts, but reduce the expenses of management. In 1866, when these taxes were reduced, they amounted to £427,000; in 1868 they amounted to £288,000, and at the end of March, 1869, they would only amount to only £276,000; yet the system of collection and assessment remained the same. He traced the discreditable condition of the London cabs to the unjust restrictions and imposts under which the trade laboured. Continental and even provincial cabs were far superior to those of the metropolis. Birmingham, for instance, was admirably furnished with street conveyances, but the proprietors paid less and were allowed to charge more than their London brethren. He trusted the Chancellor of the Exchequer would not follow in the footsteps of his predecessors and plead for postponement until a more convenient season. No season was so convenient as at the present. The 11th report of the Inland Revenue Commissioners, that for 1867, stated with reference to this matter:—

“We can scarcely add anything to our statement in the tenth report on the taxes on locomotion, except that we are disposed to doubt the expediency of any further alteration in the state carriage and post-horse duties short of such a measure as would allow to every man the free use of his horses and carriages unfettered by fiscal regulations.”

This described the object of his motion; he wished the owners of horses and carriages to be allowed to use them or let them on hire without being subject to any fiscal regulation whatever. He accordingly moved that the House resolve itself into a committee to take into consideration the taxes on locomotion.

The *Times* of the 18th inst. in a leader says:—

“The Crimean War taught us many useful lessons, but one of the most useful appears to be forgotten. Mr. Cobden was never tired of throwing in our teeth that we were embroiling ourselves in an affair 3,000 miles off, and that distance was, indeed, one great source of embarrassment and expense. But the main difficulty was of a very peculiar character. To point the moral of the story more emphatically, let us say that Sebastopol was not exactly 3,000, but 3,005 miles away from us. Now, by dint of our Imperial strength, by the command of the seas, by an inexhaustible treasury and an unsparing profusion, we rendered 3,000 miles of this distance secure and easy. From Southampton to Balaklava we went and returned without impediment or harm, but for the odd five miles between Balaklava and Sebastopol we had made no provision, and the gap in the communication very nearly proved our ruin. It was to little purpose that we established and organized a prodigious transport service, so long as that service stopped a few miles short of its end. As a beam is only as strong as its weakest part, so our line of communication was only as good as its least perfect portion, and it was not until we had carried a railway from Balaklava to Sebastopol that we enjoyed the full benefits of the service between our own ports and Balaklava. Nevertheless, in spite of that lesson, we are exposing ourselves to precisely the same disadvantage year after year in the internal communications of these islands. We have constructed and we are maintaining costly lines of railway from one place to another, and we pride ourselves upon the facilities of locomotion which railway enterprise has created for us. But railways cannot be brought quite home to every man's door. Even from the station to the town, and still more from the station to the country village, there intervenes a distance, more or less, which goes far to neutralize all the rest of the service simply because we make it as impassable as we can. On all the means of locomotion between station and residence we place

exorbitant and crushing taxes. Cabs, omnibuses, stage coaches, post-horses, and flies are all burdened with duties so oppressive as in many instances to be entirely prohibitory. We can go almost anywhere by rail so far as the station, but the getting to or from a station is made as difficult as taxes can make it. All this occurs in a country which boasts of its sound principles of finance, and which looks with pity or derision on countries where internal transit duties are maintained as sources of revenue.

"For the fourth time within the last three years Mr. Alderman Lawrence brought this subject before the House on Tuesday evening. He stated the case so simply, and yet so forcibly, that the Chancellor of the Exchequer complimented him upon his speech. His argument, indeed, from beginning to end, was unanswerable; nor did anybody endeavour to answer it. He set the absurdity of the present system in the strongest light by a single remark. So anxious had Parliament shown itself not only to encourage railway enterprise, but to bring the benefits of that enterprise within the reach of all classes, that it compelled the companies to provide trains for passengers at a rate not exceeding a penny a mile. Having done this, however, it stopped; we may almost say it retrograded. No means whatever were provided for enabling the people to reach these parliamentary trains, but, on the contrary, duties so heavy were imposed on hired carriages of all descriptions that, in the Alderman's words, 'the conveyance of the poorer classes from the railway stations to their towns and villages often cost as much as the fare for a long distance by train. It is just the Balaclava difficulty established over again in every country parish.

"There really is not a word to say for these taxes on locomotion, except that at this moment, ill-gotten as the money may be, it cannot be spared. The duties, to make the matter worse, are unequally distributed and levied, but we do not think this point need be raised. They should be abolished altogether, as doing almost the maximum of mischief to the people, with the minimum of profit to the Exchequer. They produce a very little, and they cripple travellers at every step. The Revenue Commissioners themselves give the case up. They acknowledge plainly that there is no room for tinkering or revising, and that they cannot see their way to any further alteration 'short of such a measure as would allow to every man the free use of his horses and carriages unfettered by fiscal regulations.' The truth is the present taxes actually drive carriages off the road. Except for the duty, there might be vehicles of some kind or other within reach of the smallest or loneliest station. Any owner of a wheeled carriage might eke out his own means, and accommodate his neighbours at the same time, if the law would but allow him to do so. The thing, however, is made impossible. In most villages there is a small trader owning a horse and carriage of some description or other. Nothing would be easier or more convenient than to drive it occasionally to the market town or the nearest railway station with three or four passengers, but any man who did so 'would have to take out a stage-carriage licence and pay the mileage and post-horse duties.' Those payments could not be met except from the profits of a regular and extensive trade, such as no village or hamlet could support. The result is that over a wide extent of country the advantages of railway communication are, in a great measure, lost—this loss being endured by an active and intelligent people for the sake of £276,000 a year in a revenue of £70,000,000.

"It is a national more than a metropolitan question; but still we Londoners do suffer especially from the effects of these taxes on the cab service. Our street cabs are anything but what they ought to be, and the reason, or at any rate the excuse, given for their condition is uniformly the cab tax. It is, indeed, almost incomprehensible how taxes on locomotion could have been perpetuated so long in a country like our own. Less obnoxious

duties have been attacked before now with the whole force of organized associations, but a system which fetters locomotion—that is to say, education and industry together—at every step is allowed to go on year after year, without defence, it is true, but also without alteration. Mr. Lowe frankly admitted that, whenever it again became possible to remit taxes, the taxes on locomotion would have an irresistible claim to consideration. At present, of course, there is that Abyssinian bill to pay, and a pretty mockery it seems that the money which would have enabled us to get freely and easily from one place to another at home is wanted for the expense of railways and mule roads between the Red Sea and Magdala. Transport, and nothing else, cost us all those millions, and to find them we must keep heavy taxes on the means of transport in this kingdom. It used to be prophesied or apprehended that railways would ruin all other means of communication, drive coaches out of the country, and bring hired horses and carriages within the class of unknown or forgotten things. The very reverse has happened, or would happen except for our own perversity. Many more coaches and vehicles of all sorts are wanted, and many more drivers and horse-keepers might find employment, than in any past times, if we would but allow the supply to meet the demand. Every railway station is in itself a centre of traffic, and that traffic, even in the remotest districts, would call means of locomotion into being if it were not for the obstacle of taxation. Railway reform should begin in village stables and coach-houses. There could be no 'feeders' equal to untaxed vehicles, but all this traffic we shut off by barriers erected on every road to a station. Mr. Lowe could not help himself in declining to entertain the question at present, and Alderman Lawrence knew it. It is a very common predicament, and we have often found ourselves so straitened before; but it really is not satisfactory to reflect that while for the sake of £270,000 we keep up the taxes on locomotion, we actually throw up £250,000 to abolish the tax upon pepper."

UTRECHT INTERNATIONAL EXHIBITION.

The London Committee, in connection with the forthcoming International Exhibition in the Netherlands of articles of domestic economy, held a meeting at the Mansion-house, on Friday, the 19th inst., the Lord Mayor presiding. There were present M. Everwyn, the Netherlands Chargé d'Affaires; Mr. May, Consul-General; Mr. Samuel Morley, M.P., Mr. S. Redgrave, Mr. P. Le Neve Foster, Secretary to the Society of Arts; the Rev. William Rogers, Rector of Bishopsgate; Mr. Hyde Clarke, and Mr. P. L. Simmonds. The Exhibition is to be held in August, September, and October next, and its principal object is to improve the condition of the working classes by bringing together articles of household use, furniture, dress, food, and the like of various countries, at prices combining usefulness with solidity. It was originally proposed to exhibit the articles collected in England at Guildhall, before sending them to Holland, but there being practical inconveniences in the way of that, the intended exhibition in the City of London has been abandoned. The place of exhibition in the Netherlands has been changed from Utrecht to Amsterdam, where the Exhibition can be conducted on a larger scale, in a building already in existence, specially adapted for Exhibitions and similar in design to the Crystal Palace. The jury for the Exhibition will be appointed by the King of the Netherlands, and it will be conducted by a central committee at Amsterdam, of which Baron Mackay is at the head. The Dutch railway between Rotterdam and Amsterdam will carry goods forwards and backwards free of all charges.

Within the last few weeks Mr. P. L. Simmonds, who has had much experience in Exhibitions, has, at the request of the London Committee, visited Manchester, Birmingham, Wolverhampton, the Potteries, Bolton,

Sheffield, and Nottingham, with a view to ascertain to what extent the manufacturers there would be prepared to join in the Exhibition, and at the Mansion House meeting he reported the results of his inquiries. As a rule such of the manufacturers as are disposed to send goods to the Exhibition have an objection to affix the wholesale prices to them, and have few means of knowing the retail prices. The committee thought that a reasonable objection, but were of opinion it was essential the retail prices should be affixed, so far as those could be ascertained. Eventually Mr. Simmonds was instructed to put himself in communication with the Central Committee in Amsterdam on matters of detail, and before the meeting separated a public subscription was set on foot towards carrying out the English part of the Exhibition, the Lord Mayor, as a beginning, contributing £10 10s.; Mr. Samuel Morley, M.P., £25; and the Society of Arts, £25.

Mr. P. L. Simmonds has been appointed Secretary and Manager for the London Committee, and all applications should be made to him, addressed to the Mansion House.

Fine Arts.

PICTURES BY THE LATE H. W. PHILLIPS.—The Cosmopolitan Club have kindly undertaken the exhibition of the works of the late Mr. Phillips, a portrait painter of some repute, and an artist of general ability, recently deceased in the prime of life. The large room of the club, which is at No. 30, Charles-street, is completely filled by this collection of oil paintings and water-colour drawings, the latter consisting of a large number of very clever sketches taken during a journey in the East. Amongst the paintings are many excellent portraits of distinguished men.

INTERNATIONAL ART EXHIBITION AT MUNICH.—The King of Bavaria has decided that there shall be a universal Fine Art Exhibition held this year at Munich, in the Crystal Palace of that city; it is to take place after the closing of the Paris salon, in June, in order to give French artists an opportunity of presenting their works. The prestige of Munich in matters of art is expected to give additional interest to this exhibition.

MOULINS ART EXHIBITION.—An exhibition of pictures, sculpture, &c., is announced to take place at Moulins, France, in the months of April and May, and the directors, departing from usual custom, announce that they do not intend to award any medals but to reserve all their resources for the purchase of works exhibited.

Manufactures.

NEW MIXTURE FOR TEMPERING STEEL.—A locksmith, of Mulhouse, named Herrenscheidt, claims to have discovered a mixture which is said to give to the commonest steel the grain and the temper of the finest cast metal, and, moreover, to have the power of bringing back the original quality of steel which has been burnt. The mixture is composed as follows:—With 16 litres of distilled water mix one kilogramme of hydrochloric acid, 19 grammes of nitric acid at 36°, 21 grammes of sulphate of zinc, and 100 grammes of tripoli. In this mixture is to be placed a piece of cast iron of the first fusion, weighing 100 grammes; when the acid mixture has acted on the iron for twenty-four hours, the composition is ready for use in the ordinary way, and it remains effective till it is all used.

Notes.

THE UNITED STATES NAVY.—The number of vessels composing the navy of the United States is 206, carrying 1,743 guns, and manned by 8,500 seamen. Thirty-five

of these vessels are of the 1st rate, 2,400 tons and upwards; 37 of the 2nd rate, 1,200 to 2,400 tons; 76 of the 3rd rate, 600 to 1,200 tons; and 58 of the 4th rate, under 600 tons. Fifty-two of these vessels are iron-clad, carrying 129 guns; 95 screw steamers, 938 guns; 28 paddlewheel steamers, 199 guns; and 31 sailing vessels, 477 guns. The European squadron has 5 ships; the Asiatic 9; the North Atlantic 6; the South Atlantic 5; the North Pacific 8; and the South Pacific 6.

RAILWAYS IN GREECE.—The works of the railway between Athens and the Piræus are now nearly completed, and will probably be opened for traffic towards the beginning of April.

Correspondence.

TEA CULTIVATION IN INDIA.—SIR,—Permit me to call your attention to the omission of the word *inefficient*, before the paragraph "Sub-managers were to be avoided," in the report of my remarks on the 12th instant. I endeavoured to explain that if sub-managers were engaged, they must be skilful and trustworthy; and that if the charges of working the estates would not allow of their expenses, in addition to those of the managers, it would be well to give natives the sub-charge.—I am, &c., SAMUEL WARD.
93, Cannon-street, London, E.C.

MEETINGS FOR THE ENSUING WEEK.

MON.....Actuaries, 7. Mr. Woolhouse, "On an Improved Theory of Annuities and Assurances."
WEDSociety of Arts, 8. Mr. E. A. Davidson, "On Technical Education, considered in relation to Female Schools."
THUR ...Linnean, 8. Dr. Birdwood, "On the genus *Boswellia*."
FRIGeologists' Assoc., 8.
Archæological Inst., 4.

PARLIAMENTARY REPORTS.

SESSIONAL PRINTED PAPERS.

Par. Delivered on 9th March, 1869.
Numb.
26. Court of Bankruptcy—General Returns.
44. Post-office (Foreign Mails)—Return.
58. Post-office (Mail Service, United States of America)—Three Contracts.
Delivered on 10th March, 1869.
37. Court of Chancery (Enrolments)—Return.
52. Population, Revenue, &c.—Return.
56. India Office—Order in Council.
66. (1.) Harbour Bills—Report of the Board of Trade.
66. (2.) Harbour Bills—Report of the Board of Trade.
Public Petitions—Fifth Report.
Delivered on 11th March, 1869.
12. Bill—Valuation of Property (Metropolis).
64. (1.) Committee of Selection—Second Report.
Delivered on 12th March, 1869.
41. Bill—Representative Peers (Scotland and Ireland).
55. West India Islands, &c., Relief—Account.
68. New Courts of Justice—Report by Mr. F. W. Shields, C.E.
70. Under Secretaryship for Ireland—Letter.
72. Penian Convicts—Return.
75. Army—Order.
Charity Commission—First Report of the Commissioners.
Courts Martial and Military Punishments—First Report of the Commissioners.
Delivered on 13th March, 1869.
39. Bill—Municipal Corporations (Metropolis).
40. Corporation of London.
69. Duchy of Cornwall—Account.
74. Asylums (Metropolis)—Returns.
Public Petitions—Sixth Report.
Delivered on 15th March, 1869.
44. Bill—Inclosure Awards (County Palatine of Durham).
46. Civil Service Pensions.
64. (11.) Committee of Selection—Third Report.
67. Metropolis Turnpike Roads—Forty-third Report.
68. New Courts of Justice—Report by Mr. F. W. Shields, C.E. (corrected copy).
71. Queen Anne's Bounty—Account.

Delivered on 16th March, 1869.

42. Bill—Civil Offices (Pensions).
49. „ Seeds Adulteration.
65. Bridgwater Election—Minutes of Evidence.

Delivered on 17th March, 1869.

43. Bill—Representation of the People Act (1867) Amendment.
48. „ Medical Officers Superannuation (Ireland).
0-29. House of Commons (Arrangements)—Report.
59. Army—Appropriation Account.
77. Postal Contracts—Correspondence.
Public Petitions—Seventh Report.

Delivered on 18th March, 1869.

47. Bill—Game Laws (Scotland) (No. 2).
57. „ Lord Napier's Salary.
63. Woods, Forests, and Land Revenues—Abstract Accounts.
73. Duchy of Lancaster—Account.
76. Cattle Plague—Return.
78. Members holding Contracts (Sir Sydney Waterlow)—Report and Evidence.
81. Railway and Canal Bills—First Report.
Church Estates Commission—Eighteenth Report.
Ecclesiastical Commission—Twenty-first Report.

SESSION 1868.

432. (1.) Scientific Instruction—Index to the Report.

Delivered on 19th March, 1869.

50. Bill—Bankruptcy.
55. „ Drainage and Improvement of Lands (Ireland) (Supplemental).
56. „ Salmon Fisheries (Ireland).
57. Criminal Offenders (Scotland)—Tables.

Patents.*From Commissioners of Patents' Journal, March 19.*

GRANTS OF PROVISIONAL PROTECTION.

- Animal charcoal, cooling and sifting ground—722—G. H. T. Finzel.
Bedsteads, &c., spring bottoms for—695—H. Tylor.
Boilers—754—H. Ormson.
Boilers, &c., welding and flanging plates and tubes used in the manufacture of—755—T. Beeley and D. Hanson.
Bolts and rivets, machinery for making—659—S. Marsden.
Bottles, &c., covering or capping—3961—J. Marsh.
Buoys, &c.—379—E. W. Hawes.
Capsules—665—W. Betts.
Carding engines—678—W. S. Meldrum.
Casks, &c., tilts for—715—L. Hudson.
Cattle trucks, &c., supplying water to—653—D. Sword.
Cigar cases, &c.—750—W. E. Newton.
Chess and cribbage board combined—706—W. Saunders and C. Smith.
Chlorine, manufacturing—732—W. Weldon.
Clipping apparatus—671—H. Knight.
Clocks—698—H. W. Cook.
Concrete, manufacturing and mixing—736—C., W., and J. Drake.
Corn, &c., preserving—738—G. Spencer.
Cranes—682—H. and J. Ellis.
Dressing-case and bag combined—726—W. Saunders and C. Smith.
Envelopes—665—A. M. Clark.
Fabrics, finishing textile—703—W. B. Thompson.
Fabrics, manufacturing—673—C. E. Brooman.
Fabrics, weaving ornamental—735—E. Rule.
Fire-places, utilising the heat under ordinary—468—W. Smartt.
Fluids, imparting colours to hydro-carbonaceous—744—G. Glover.
Fuel economisers—728—T. Otach.
Gas burners—730—W. R. Lake.
Gas meters, dry—712—J. J. Shedlock.
Gas meters, wet—711—J. J. Shedlock.
Gas, purifying, &c.—681—J. B. Spence.
Gas, purifying, &c.—679—J. B. Spence.
Goods or passengers, conveying from one place to another—737—F. O. Palmer.
Grain, decorticating and cleaning—740—D. Johnson.
Grates, &c., utilising the parts of—716—J. Dickie.
Hammers, operating tilt—709—W. R. Lake.
Injectors—668—C. D. Abel.
Iron and steel—699—J. P. Budd.
Iron and steel—724—J. Henderson.
Iron or steel rings, plates, &c., grinding and surfacing—697—J. A. Jaques, J. T. Oakley, and J. A. Fanshawe.
Leather, compressed—689—W. Burr.
Lifting apparatus—694—T. Moore.
Liquids, wort, &c., utilising steam or other vapours arising from the boiling of—746—J. Waddington, jun., A. Waddington, and F. Bell.
Looms—675—J. Holding.
Looms—714—H. Mason, G. Hartley, and J. Hindle.
Lubricators—686—A. Dixon.
Magic lanterns, slides for—681—T. Ross, jun.
Meat, &c., preservation of during their carriage by railway—319—W. A. Smith.
Metals, &c., drilling, &c.—691—J., J. E., and W. Pitt.
Mules for spinning—225—C. B. Parkinson, A. and J. Metcalfe, and W. H. Heald.
Mules for spinning and doubling—734—W. Knowles.
Neckties, &c., fastening the knots of—672—H. A. Bonneville.
Needles, instrument for threading—680—A. Morrall.

- Oil, purifying and clarifying—694—L. M. Ruiz.
Ordnance, &c., mounting and working—3473—T. Berney.
Paper-hangings—700—R. F. Piltz and T. H. Lee.
Paper-making machines, wire cloth for—688—J. B. Rowelliffe.
Pumping and measuring apparatus—687—J. A. McElroy.
Railway trains, communication in—592—H. J. Ledger.
Rooms, &c., regulating the internal temperature of—710—R. Briggs.
Rotary engines and pumps—676—J. Loader.
Rotary motion, converting a reciprocating motion into a—707—W. R. Lake.
Sails, hanks for hoisting and lowering—683—W. G. Simon.
Screw propellers—684—R. R. Bevis.
Shears and scissors—677—R. Badger.
Signals, &c.—701—R. Turnbull and J. G. Piton.
Silk waste, &c., preparing and slivering the short drafts of dressed—752—T. Greenwood.
Soap—720—H. W. Goldring.
Spring mattresses, &c.—631—C. E. Brooman.
Stamping presses—674—W. B. Waterlow.
Steam engines, &c.—623—W. Simpson and A. Gardner.
Steam engines, &c., expansion slide-valve gear for—729—W. Walker.
Stone, dressing—704—A. Mitchell.
Studs or buttons—667—C. Tighe.
Tins or boxes for preserving provisions, &c.—67—W. E. Gedge.
Travelling with ease, speed, and safety, apparatus for—634—J. Farrington.
Tumblers, wine glasses, &c.—3616—T. G. Webb.
Turbine wheels, &c.—718—W. R. Lake.
Umbrella coverings, &c., materials applicable as—719—A. M. Clark.
Umbrellas, &c.—702—T. Baker.
Velocipedes—663—W. Macrae.
Velocipedes—708—F. F. Villepigue.
Warping and weaving machinery—692—C. Mather and W. Rossetter.
Watches, &c.—667—M. G. Cole.
Waterclosets, a self-acting back-wash chamber for—742—T. H. Harrison.
Whip sockets—748—C. H. Cooper.
Whips—731—B. Britten.
Winding machinery employed in mines, &c.—607—W. Thomas and W. Davis.
Woollen cloths and mixed fabrics, finishing—756—G. Smith.

INVENTION WITH COMPLETE SPECIFICATION FILED.

- Spinning and twisting machinery—759—W. R. Lake.

PATENTS SEALED.

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| 2680. J. M. Hunter. | 2934. E. Death and J. Ellwood. |
| 2902. C. Wheeler. | 2936. J. Fry. |
| 2921. E. W. Halliday. | 2938. J. F. Wanner. |
| 2922. H. Lomax. | 2953. H. Davey. |
| 2924. A. Barclay. | 2955. J. Sutcliffe. |
| 2926. J. H. Glew. | 2972. R. Duncan. |
| 2927. C. Heptonstall. | 2994. A. Lafargue. |
| 2929. A. M. and M. A. Wier. | 3039. C. F. Galand and A. Somerville. |
| 2930. H. Woods. | 3310. Q. and J. Whyte. |
| 2931. C. Hengst, H. Watson, J. B. Muschamp, and N. Wilson. | 3660. J. Grindrod. |
| | 3831. F. Ryland. |

From Commissioners of Patents' Journal, March 23.

PATENTS SEALED.

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| 2941. J. Torbitt. | 2983. A. V. Newton. |
| 2944. J. Wright and W. H. Williams. | 3008. J. D. Scally. |
| 2952. P. J. E. Caron. | 3018. F. A. Calvert. |
| 2954. J. H. Johnson. | 3029. Z. Shrimpton. |
| 2959. P. Spence. | 3048. T. Garnett. |
| 2960. J. Petrie, jun. | 3055. J. H. Johnson. |
| 2961. J. Jones and G. E. Wilkinson. | 3056. D. Marshall. |
| 2962. G. F. Morant. | 3094. H. A. Bonneville. |
| 2963. V. Gallet. | 3101. H. A. Archereau. |
| 2964. H. Gibson. | 3110. G. P. Grant. |
| 2965. F. B. Döring. | 3141. L. Clozel. |
| 2969. W. MoAdam. | 3190. A. Clark. |
| 2971. G. A. C. Bremme. | 3194. W. R. Lake. |
| 2973. J. Robinson. | 3211. J. H. Johnson. |
| 2975. J. Smith. | 3215. T. Forster & J. Heartfield. |
| 2978. A. M. Clark. | 3403. H. L. Bennison. |
| | 3497. A. Clark. |
| | 285. A. M. Clark. |

PATENTS ON WHICH THE STAMP DUTY OF £50 HAS BEEN PAID.

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| 779. T. G. Ghislin. | 1167. A. Borgnet. |
| 780. W. Hutchinson & F. Jolly. | 853. W. Clark. |
| 785. W. and F. Bates. | 815. H. B. Barlow. |
| 830. F. P. Warren. | 859. C. E. Brooman. |
| 837. C. Rozière. | 907. T. Storey and W. V. Wilson. |
| 861. W. L. and T. Winans. | 868. J. Erskine. |
| 935. J. J. Derriery. | |

PATENTS ON WHICH THE STAMP DUTY OF £100 HAS BEEN PAID.

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| 723. G. Hamilton. | 841. W. L. Winans. |
| 741. T. Myers. | 765. R. Wilson. |
| 752. W. Tongue. | 785. J. Newall. |
| 836. R. Boby. | |